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Page 56, line 17, *for* " 150 million " *read* " 56 million."

THE

ECONOMIC JOURNAL

VOLUME XXXI

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THE PRIMITIVE ECONOMICS OF THE TROBRIAND ISLANDERS[1]

ONLY a very slight acquaintance with ethnological literature is needed to convince us that little attention has been paid so far to the problems of economics among primitive races. A certain amount of speculation has been devoted to origins of economic institutions—more especially to origins of property; to the stages of economic development, and to certain questions of exchange, "primitive money," and rudimentary forms of division of labour. As a rule, however, small results have been achieved, because the amount of serious consideration given by theoretical writers to economic problems is in no way proportional to their complexity and importance, and the field observations extant are scanty. Again, the lack of inspiration from theoretical work has reacted detrimentally on ethnographic field work, and a careful survey of the best records of savage life reveals little or nothing that might be of value to the economist.

A student of economics, in possession of a systematic theory, might be naturally tempted to inquire how far, if at all, his conclusions can be applied to a type of society entirely different from our own. He would attempt in vain, however, to answer this question on the basis of the ethnological data extant, or, if he did, his results could not be correct. In fact, the question has been set forth and an attempt at its solution made by C. Buecher in his *Industrial Evolution*. His conclusions are, in my opinion, a failure, not owing to imperfect reasoning or method, but rather to the defective material on which they are formed. Buecher comes to the conclusion that the savages—he includes among them races as highly developed as the Polynesians—have no economic organisation, and that they are in

[1] *Résumé* of a course of lectures given at the London School of Economics in the Summer Term, 1920, embodying some results of the Robert Mond Ethnographic Expedition to British New Guinea.

a pre-economic stage—the lowest in that of the individual search for food, the higher ones in the stage of self-sufficient household economy.

In this article I shall try to present some data referring to the economic life of the Trobriand Islanders, a community living on a coral archipelago off the north-east coast of New Guinea. These natives, typical South Sea Islanders of the Melanesian stock, with a developed institution of chieftainship, great ability in various crafts and a fine decorative art, certainly are not at the lower end of savagery. In their general level of culture, however, they may be taken as representative of the majority of the savage races now in existence, and they are less developed culturally than the Polynesians, the bulk of North American Indians, of Africans, and of Indonesians. If we find, therefore, distinct forms of economic organisation among them, we are safe in assuming that even among the lowest savages we might expect to find more facts of economic interest than have been hitherto recorded.

I shall first give an outline of the natural resources of the Trobrianders and a broad survey of the manner in which these are utilised. The natives live on flat coral islands, covered with rich, heavy soil, very well suited for the cultivation of yams and taro, and they also enjoy a good regular rainfall. The coast is surrounded in parts with a fringing reef, in parts it encloses a big, shallow lagoon, teeming with fish. Having such excellent natural inducements, the natives are splendid tillers of the soil and first-rate fishermen, efficient and hard-working in both pursuits. These in turn reward them with a perennial abundance of food, sufficient to support a population very dense, as compared with other tribes of that part of the world. In gardening the natives obtain their fine results in spite of using only the most primitive implement—a pointed stick, made and discarded every time they go to work. In fishing they use big nets, also traps, fish-hooks and poison. As manufacturers they excel in wood-carving, basket-weaving, and the production of highly-valued shell ornaments. On the other hand, through lack of material, they have to rely on the importation from other tribes of stone implements and pottery, as, of course, neither hard stone nor clay are obtainable on a coral island. I have begun by giving this general outline of their resources, pursuits and crafts, in order to indicate the narrow frame within which the current accounts of economics are encompassed. The data would there, no doubt, be given with a much greater wealth of detail—especially in the

technological aspect—but it would be mainly the successive description of the various activities, connected with the quest for food and the manufacture of objects, without any attempt being made at a discussion of the more complex problems, referring to organisation of production, apportionment, and to the mechanism of tribal life in its economic aspect.

This will be done here, beginning with production, and taking agriculture as an example.

The questions before us are, first, the important problem of land tenure; next, the less obvious problems of the organisation of production. Is the work in the gardens carried out by each family, or each person individually and independently? Or is there any general co-ordination of this work, any social organisation of their efforts, and, if so, how is it done, and by whom? Are the successive stages of the work integrated into any organic whole, by any supervision, by any personal guidance, or any social or psychological force?

Land tenure among the Trobriand natives is rather complex, and it shows well the difficulties of solving ethnographic field problems of this type and the dangers of being misled into some inadequate approximation. When I began to inquire into this subject, I first received from my native informant a series of general statements, such as that the chief is the owner of all land, or that each garden plot has its owner, or that all the men of a village community own the land jointly. Then I tried to answer the question by the method of concrete investigation: taking a definite plot, I inquired successively, from several independent informants, who was the owner of it. In some cases I had mentioned to me successively as many as five different "owners" to one plot—each answer, as I found out later on, containing part of the truth, but none being correct by itself. It was only after I had drawn up complete plans of the garden land of several village communities, and inquired successively into the details, not only of each separate garden unit, but also into the details of each of the alleged forms of "ownership," that I was able to reach a satisfactory conclusion. The main difficulty in this, as in ever so many similar questions, lies in our giving our own meaning of "ownership" to the corresponding native word. In doing this we overlook the fact that to the natives the word "ownership" not only has a different significance, but that they use one word to denote several legal and economic relationships, between which it is absolutely necessary for us to distinguish.

The chief (*Guya'u*) has in the Trobriands a definite over-right over all the garden land within the district. This consists in the title of "master" or "owner" (*Toli*), and in the exercise of certain ceremonial rights and privileges, such as the decision on which lands the gardens are to be made, arbitration in garden disputes, and several minor privileges. The garden magician (*Towosi*) also calls himself the "master of the garden" and is considered as such, in virtue of his complex magical and other functions, fulfilled in the course of gardening. Again, in certain cases, and over certain portions of the land, the same title is given to notables or sub-chiefs, who carry out certain minor offices in connection with it. Finally, each garden plot belongs to some individual or other in the village community, and, when the gardens are made on this particular land, this owner either uses his plot himself or leases it to someone else under a rather complicated system of payment. The chief, the magician and the notables also own individually a number of garden plots each, independently of their general over-rights.

Now the reason why an economist cannot ignore such over-rights and complications is that the natives value them extremely, and, what is more important, that such over-rights carry with them definite functions and wield definite influences of economic importance.

Thus the complex conditions of land tenure, the not infrequent quarrels about gardening, and the need for summoning and maintaining communal labour require a social authority, and this is supplied by the chief with the assistance of the notables. On the other hand, the *Towosi*, the hereditary garden magician of each village community, has to a great extent the control over the initiative in the more detailed proceedings of the work. Each stage of gardening is inaugurated by a magical rite performed by him. He also orders the work to be done, looks after the way in which it is carried out, and imposes the periods of taboo, which punctuate it.

The proceedings of gardening are opened by a conference, summoned by the chief and held in front of the magician's house, at which all arrangements and the allotment of garden plots are decided upon. Immediately after that, the members of the village community bring a gift of selected food to the garden magician, who at night sacrificially offers a portion of it to the ancestral spirits, with an invocation, and at the same time utters a lengthy spell over some special leaves. Next morning, the magician repairs to the garden, accompanied by the men of the

village, each of whom carries an axe with the charmed leaves wrapped around its blade. While the villagers stand around, the *Towosi* (magician) strikes the ground with a ceremonial staff, uttering a formula. This he does on each garden plot successively, and on each the men cut a few saplings with their axes. After that, for a month or so, the scrub is cut in the prospective gardens by men only, and communal labour is often resorted to. The *Towosi* has to decide when the next stage, the burning of scrub and the clearing of soil, has to begin. When he thinks that the cut scrub is sufficiently dry, he imposes a taboo on garden work, so that any belated cutting has to be suspended. In a series of rites, lasting, as a rule, for about three days, he inaugurates the work of clearing the garden plot; this afterwards is carried on by men and women jointly, working in families, each on its own plot, without the help of communal labour. The planting of yams is inaugurated by a very elaborate ceremony, also extending over a few days, during which no further garden work is done at all. A magical rite of its own inaugurates each further stage, the erection of supports for the yam vine; the weeding of the gardens, done by female communal labour; the cleaning of the yam roots and tubers; the preliminary harvest of early yams; and finally the main harvest of late yams.

When the plants begin to grow a series of magical rites, parallel with the inaugural ones, is performed, in which the magician is supposed to give an impulse to the growth and development of the plant at each of its successive stages. Thus, one rite is performed to make the seed tuber sprout; another drives up the sprouting shoot; another lifts it out of the ground; yet another makes it twine round the support; then, with yet other rites, the leaves are made to bud, to open, to expand, respectively.

The *Towosi* (garden magician) always performs a rite first on one of the four garden plots selected for the purpose each season, and called *Leywota*. In certain ceremonies he afterwards carries the magic on into each garden plot, in others the magic is performed on the selected plots only. The *Leywota* are important from the economic point of view, because the owner of such a plot is bound to keep pace with the progress of magic, that is, he may not lag behind with his work. Also, the *Leywota* plots are always worked with a special care, and they are kept up to a very high standard of gardening. Thus, both in the regularity and in the quality of the work done, these plots set a definite pattern to all the others.

Besides the indirect influence which the *Towosi* exercises on garden work by giving the initiative and inaugurating the successive stages, by imposing taboos, and by setting the standard by means of the *Leywota* plots, he also directly supervises certain activities of general importance to all the gardens. Thus, for example, he keeps his eye on the work done in fencing round the garden. All the plots are placed within a common enclosing fence, of which everyone has to make his share, corresponding to his plot or plots. Thus, the neglect of one careless individual might result in a damage to all, for bush pigs or wallabies might find their way in and destroy the new crops. If this happens, the garden magician gets up in front of his house in the evening and harangues the village, often mentioning the culprit by name and heaping blame on him—a proceeding which seldom fails to take effect.

It is easy to see that the magician performs manifold and complex functions, and that his claim to be the "master of the garden" is not an empty one! What is now the economic importance of his functions? The natives believe deeply that through his magic the *Towosi* controls the forces of Nature, and they also believe that he ought to control the work of man. To start a new stage of gardening without a magical inauguration is, for them, unthinkable. Thus, his magical power, exercised side by side with their work, his magical co-operation, so to speak, inspires them with confidence in success and gives them a powerful impulse to work. Their implicit belief in magic also supplies them with a leader, whose initiative and command they are ready to accept in all matters, where it is needed. It is obvious that the series of magical rites—punctuating the progress of activities at regular intervals, imposing a series of rest periods, and, in the institution of standard plots (*Leywota*), establishing a model to the whole community—is of extreme importance. It acts as a psychological force, making for a more highly organised system of work, than it would be possible to achieve at this stage of culture by an appeal to force or to reason.

Thus, we can answer the questions, referring to the organisation of production, by summing up our results, and saying that the authority of the chief, the belief in magic, and the prestige of the magician are the social and psychological forces which regulate and organise production; that this latter, far from being just the sum of uncorrelated individual efforts, is a complex and organically united tribal enterprise.

Finally, a few words must be said about the character of

native labour in the Trobriands. We would see their economic activities in an entirely wrong perspective, if we were to imagine that these natives are temperamentally lazy and can work only under some outside pressure. They have a keen interest in their gardens, work with spirit, and can do sustained and efficient work, both when they do it individually and communally. There are different systems of communal work on various scales; sometimes the several village communities join together, sometimes the whole community, sometimes a few households. Distinctive native names are given to the various kinds of communal work, and payment in food also differs. In the more extensive kinds of work, it is the chief's duty to feed the workers.

An interesting institution of ceremonial enterprise deserves special attention. This is known as the *Kayasa*, and might be described as a period when all activities, whether gardening, fishing, industrial or even merely tribal sports and merrymaking, are carried out with special intensity. When the season is good, and the time is felt by the whole community to be propitious, the chief announces the *Kayasa*, and inaugurates it by giving a big feast. The whole period of the *Kayasa* is punctuated by other feasts, also provided for by the chief, and everyone who takes part is under an implicit obligation to do his best, and work his hardest, so that the *Kayasa* may be a success.

We have discussed their production on the example of gardening. The same conclusions, however, could have been drawn from a discussion of fishing, building of houses or canoes, of from a description of their big trading expeditions. All these activities are dependent upon the social power of the chief and the influence of the respective magicians. In all of them the quantity of the produce, the nature of the work and the manner in which it is carried out—all of which are essentially economic features—are highly modified by the social organisation of the tribe and by their magical belief. Customary and legal norms, magical and mythological ideas, introduce system into their economic efforts and organise them on a social basis. On the other hand, it is clear that if an ethnologist proposes to describe any aspect of tribal life, without approaching it also from the economic point of view, his account would be bound to be a failure.

This will be still more evident after a description of the manner in which they apportion the produce and utilise it in what could be called the financing of tribal enterprise. Here, again, I shall speak, for simplicity's sake, mainly of the garden

produce. As each man has allotted to him for each season one or several garden plots, we might expect that, following the principle of "closed household economy," each family would by themselves consume the results of their labour. As a matter of fact, the apportionment or distribution, far from following such a simple scheme, is again full of intricacies and presents many economically interesting features. Of these the two most important are: the obligations, imposed by rules of kinship and relationship-in-law, and the dues and tributes paid to the chief.

The first-named obligations involve a very complex redistribution of garden produce, resulting in a state of things in which everybody is working for somebody else. The main rule is that a man is obliged to distribute almost all his garden produce among his sisters; in fact, to maintain his sisters and their families. I must pass over all the complications and consequences implied by this system, and only notice that it means an enormous amount of additional labour in handling and transporting the produce, and that it enmeshes the whole community into a network of reciprocal obligations and dues, one constant flow of gift and counter-gift.

This constant economic undertow to all public and private activities—this materialistic streak which runs through all their doings—gives a special and unexpected colour to the existence of the natives, and shows the immense importance to them of the economic aspect of everything. Economic considerations pervade their social life, economic difficulties constantly face them. Whenever the native moves—to a feast, to an expedition, or in warfare—he will have to deal with the problems of giving and counter-giving. The detailed analysis of this state of affairs would lead us to interesting results, but it would be a side issue from our main theme—the public economy of the tribe.

To return to this, we must first consider, what part of the whole tribal income is apportioned to the chief. By various channels, by dues and tributes, and especially through the effect of polygamy, with its resulting obligations of his relatives-in-law, about 30 per cent. of the whole food production of his district finds its way into the large, finely-decorated yam houses of the chief. Now to the natives the possession and display of food are of immense value and importance in themselves. Pride in possessing abundant food is one of their leading characteristics. One of the greatest insults that can be uttered is to call someone "Man with no food," and it would be bitterly resented, and probably a quarrel would ensue. To be able to boast of

having food, is one of their chief glories and ambitions. Their whole conduct, in the matter of eating in public, is guided by the rule that no suspicion of scarcity of food can possibly be attached to the eater. For example, to eat publicly in a strange village would be considered humiliating, and is never done.

Their ambitions in this direction are also shown by the keen interest taken in the display of food. On all possible occasions —at harvest time, when there is an interchange of gifts, or when the enormous food distributions (*Sagali*) take place—the display of the food is one of the main features of interest. And there are even special food exhibitions, in which two villages compete against each other, and which in the old days used to be taken so seriously that often war was the result.

The chief is the only person who owns a big yam house, which is made with open interstices between the beams so that all may look through and admire the yams, of which the finest are always placed to the front. The chief is, as a matter of fact, also the only person who can accumulate, and, as a matter of privilege, the only one who is allowed to own and display large quantities. This gives him a definite status, is a sign of high rank, and satisfies his ambition. Finally, it enhances his power, broadly speaking, in the same manner as possession of wealth does with us.

Another important privilege of the chief, is his power to transform food into objects of permanent wealth. Here again, he is the only man rich enough to do it, but he also jealously guards his right, and would punish anyone who might attempt to emulate him, even on a small scale.

The *Vaygua*—objects or tokens of wealth—consist of several classes of highly-valued articles, mainly big ceremonial axe-blades, necklaces of red shell discs, and armshells of the *conus millepunctatus* shell. These objects are hardly ever put to any real use, but they are extremely highly valued in themselves by the natives. The material of which they are made is rare and difficult to obtain, and much time and labour must be spent in working it. Once made, however, the objects are very durable, almost indestructible. Their main economic function is to be owned as signs of wealth, and consequently of power, and from time to time to change hands as ceremonial gifts. As such, they are the foundation of certain kinds of native trade, and they constitute an indispensable element of the social organisation of the natives. For, as mentioned above, all their social life is accompanied by gift and counter-gift. These are, as a rule,

arranged so that one party has to give a substantial present of food, when the other offers one of the tokens of wealth.

The chief, as said, has the means and the customary privilege of producing these objects. He also, in definite circumstances, frequently acquires them in exchange for food. In any case, about 80 per cent. of these objects remain in his possession (or at least this was the proportion before the chief's power and all their tribal law had been undermined by white man's influence). This acquisition of valuables, side by side with possession of food, is the basis of his power and a mark of his dignity and rank.

The chief finally is (or, more correctly, in olden days was) the owner of about three-quarters of all the pigs, coconuts and betel nuts in the district. By a system of *métayage*, there are in the various villages certain people, who look after his right over these three classes of things; they also receive their share, but have to bring him the bulk of the produce.

Thus, the possession of the beautiful yam houses, always ready to receive the crops, and often filled with them; the acquisition of a large amount of *Vaygua* (tokens of wealth), and of the greater part of the pigs, coconuts and betel nuts, give the chief a static basis of power, prestige and rank. But also the control over all these classes of wealth allows him to exercise his power dynamically.

For in a society where everything has to be accompanied by gift and payment, even the chief, the highest and most powerful individual in the community, though, according to customary rule, he can command the services of all, still must pay for them. He enjoys many personal services, such as being carried about on his journeys, sending people on errands, having all forms of magic performed for him. For such services, rendered by retainers and picked specialists, a chief must pay immediately, sometimes in *Vaygua*, sometimes in food, more especially in pigs, coconuts and betel nuts.

The essential of power is, of course, the possibility of enforcing orders and commanding obedience by means of punishment. The chief has special henchmen to carry out his verdicts directly by inflicting capital punishment, and they must be paid by *Vaygua*. More often, however, the punishment is meted out by means of evil magic. How often the sorcerers in the Trobriands use poison, it would be difficult to say. But the enormous dread of them, and the deep belief in their power, renders their magic efficient enough. And if the chief were known to have given

a *Vaygua* to a powerful sorcerer in order to kill a man, I should say that man was doomed.

Even more important than the exercise of personal power, is the command, already mentioned once or twice, which wealth gives the chief over the organisation of tribal enterprises. The chief has the power of initiative, the customary right to organise all big tribal affairs, and conduct them in the character of master of ceremonies. But there are two conditions incidental to the *rôle* he has to play. The leading men, such as the headmen of dependent villages, the main performers, the always indispensable magicians, the technical specialists, have all to be paid, and are, as usual, paid in objects of wealth, and the bulk of the participants have to be fed.

Both these conditions can be fulfilled by the chief in virtue of his control over a considerable portion of the consumable and condensed wealth of the tribe.

As a concrete example of big tribal affairs, organised and financed by the chief, we can quote first of all the above-mentioned *Kayasa*, a term embracing several kinds of ceremonial enterprises. In these, as we saw, the chief, by means of gifts, imposes a binding obligation on the participants to carry out the undertaking, and by means of periodical distributions he keeps everyone going during the time of dancing, merry-making or communal working. In former times during war, when the inhabitants of two hostile districts used to forgather in their respective chiefs' villages, the chief had to summon his vassal headmen by gifts of *Vaygua*.[1] Then at an initial ceremonial gathering, there would be a distribution of food, in particular the specially coveted pig's flesh, coconuts and betel nuts. And, later on, when during the progress of hostilities large numbers had to camp in or near the chief's village, his yam houses would be severely taxed in order to keep the warriors provided with food. Again, there is an important feature of their tribal life—the *Sagali*, or ceremonial distributions of food from one clan to another, associated with their mortuary ritual. In these the chief's wealth often had to be called upon to a considerable extent if the nominal giver of the feast had any claim on him as his kinsman, clansman, or relative-in-law.

We see, therefore, that in following up the various channels through which produce flows, and in studying the transformations it undergoes, we find a new and extremely interesting field for ethnological and economic interest. The chief's economic *rôle*

[1] For a general description of the Kiriwinian war customs, which are a thing of the past, see the article by the writer in *Man*, January, 1920.

in public life can be pointedly described as that of "tribal banker," without, of course, giving this term its literal meaning. His position, his privileges, allow him to collect a considerable portion of tribal yield and to store it, also to transform part of it into permanent condensed wealth, by the accumulation of which he gives himself a still bigger fund of power. Thus, on the one hand, the chief's economic function is to create objects of wealth, and to accumulate provisions for tribal use, thus making big tribal enterprises possible. On the other hand, in doing so, he enhances his prestige and influence, which he also exercises through economic means.

It would be idle to generalise from one example, or to draw strained parallels—to speak of the chief as "capitalist" or to use the expression "tribal banker" in any but the most unpretentious way. If we had more accounts of native economics similar to this—that is, going more into detail and giving an economic synthesis of facts—we might be able to arrive, by comparative treatment, at some interesting results. We might be able to grasp the nature of the economic mechanism of savage life, and incidentally we might be able to answer many questions referring to the origins and development of economic institutions. Again, nothing stimulates and broadens our views so much as wide comparison and sharp contrast, and the study of extremely primitive economic institutions would no doubt prove very refreshing and fertilising to theory.

It is necessary to point out that, in such a short article, where the broad outline of the institutions and customs has to be given with a few strokes, I have had to summarise certain things. Thus I speak of "the chief," whereas in a more detailed account I would have shown that there are several chieftainships in the tribe with a varying range and amount of power. In each case the economic, as well as the other social conditions, are slightly different, and to these differences I have not been able to do justice in this article. I have tried to present the general features which, in a manner, are common to all the districts of Kiriwina. A greater wealth of detail, though it might blur certain outlines and certainly would make things look less simple, would have allowed us to draw our conclusions even more forcibly and convincingly.

To sum up the results so far obtained, we may say that both the production and its apportionment in the native communities are by no means as simple as is usually assumed. They are both based on a special form of organisation, both are intertwined

with other tribal aspects, depending and reacting on other social and psychological forces.

Through the institution of chieftainship and the belief in magic, their production is integrated into a systematic effort of the whole community. By this a considerable amount of consumable wealth is produced, a great part of which is controlled by the chief, who transforms some of it into permanent wealth and keeps the rest in store. This, again, coupled with the natives' regard for wealth, and the importance of material give-and-take in their social institutions, allows the chief to wield his power to organise and finance tribal life.

We have not spoken of exchange yet, and, indeed, it is such a vast subject in the Trobriands—that is, if treated in the light of a more precise analysis—that in this paper I shall not attempt to deal with it exhaustively. There is, however, one point to which I want to draw attention. The tokens of wealth have often been called "money." It is at first sight evident that "money" in our sense cannot exist among the Trobrianders. The word "currency"—differentiated from "money" in that it is an object of use as well as a means of exchange—does not help us much here, as the articles in question are not utilities. Any article which can be classed as "money" or "currency" must fulfil certain essential conditions; it must function as a medium of exchange and as a common measure of value, and it must be the instrument of condensing wealth, the means by which value can be accumulated. Money also, as a rule, serves as the standard of deferred payments. It is obvious at once that in economic conditions such as obtain among the Trobrianders, there can be no question of a standard of deferred payments, as payments are never deferred. It is equally clear that the *Vaygua* do serve as a means of condensing wealth—in fact, that this is their essential *rôle*.

The questions of a common measure of value and a measure of exchange require, however, some consideration. Exchange of useful articles against one another does exist in Kiriwina, both in internal and external trade. Indeed, barter among the natives is very well developed. Their exchange sometimes takes the form of free gift and following counter-gift—always repaid according to definite rules of equivalence. Sometimes it is real barter (for which they have a term—*Gimwali*), where one article is traded against another, with direct assessment of equivalence and even with haggling.

But in all cases trade follows customary rules, which deter-

mine what and how much shall be exchanged for any given article. Thus the villagers of Bwoitalu are the professional carvers in hard wood and produce excellent carved dishes. They are, on the other hand, in need of coconuts and yam food, and they like to acquire certain ornaments. Whenever one of them has a few dishes of certain dimensions on hand, he knows that in the village of Oburaku he can get about forty coconuts for one grade, twenty for another, ten for another, and so on; in the central villages of Kiriwina, he can obtain a definite number of yam baskets; in some other villages, he can get a few red shell-discs or turtle-shell ear-rings. Again, some coastal villages need a special kind of strong creeper for lashing their canoes. This they know can be obtained from villages near swamps for a definite payment—that is, one coil of creeper for one coconut or betel nut, or ten coils for a small basketful of yams.

All the trade is carried on in exactly the same way—given the article, and the communities between which it is traded, anyone would know its equivalent, rigidly prescribed by custom. In fact, the narrow range of exchangeable articles and the inertia of custom leave no room for any free exchange, in which there would be a need for comparing a number of articles by means of a common measure. Still less is there a need for a medium of exchange, since, whenever something changes hands, it does so always because the barterers directly require the other article.

This leads us first of all to the conclusion that we cannot think of *Vaygua* in terms of "money." Moreover, what is more important still, we see that in Kiriwina the character of the exchange does not admit of any article becoming money. Certain things, no doubt, more especially basketsful of yams, bundles of taro and coconuts are very frequently exchanged, and against a wide range of other articles, and in economic considerations they may serve us as measures of value, but they are not regarded or purposely used as such by the natives.

When reading ethnological accounts about native "money" —such, for example, as those about the *diwarra* shells in New Britain or about the big stones in the Carolines—the statements appear to me singularly unconvincing. Unless it is shown that the mechanism of exchange among the natives there requires or even allows of the existence of an article, used as a common measure of value or medium of exchange, all the data given about an article, however much they might lend it a superficial resemblance to money, must be considered worthless. Of course, when a savage community comes into commercial relations with a

higher culture—as in Africa, where trading between Arabs and Europeans has long taken place—then money can and even must exist. Some forms of the so-called South Sea "money" may have acquired this character recently under European influence, and the *diwarra* may possibly be a case in point.

The discussion of the problem of money among primitive peoples shows very clearly how necessary it is in ethnology to analyse the economic background of the conditions indispensable to the existence of certain complex phenomena. The existence of "money" or "currency" so easily assumed, so glibly introduced by the use of these terms, proves with close analysis to be an hypothesis extremely bold and probably equally misleading.

One further function of the tokens of value should be mentioned here, that is, their exchange in the form of circular trading, called by the natives *Kula*, which takes place over a wide area amongst the islands and coasts of this part of British New Guinea. This peculiar form of circular trade presents many interesting economic features, but as it has been described elsewhere I shall not enter into the subject now.[1]

All the facts adduced in this article lead us to the conclusion that primitive economics are not by any means the simple matter we are generally led to suppose. In savage societies national economy certainly does not exist, if we mean by the term a system of free competitive exchange of goods and services, with the interplay of supply and demand determining value and regulating all economic life. But there is a long step between this and Buecher's assumption that the only alternative is a pre-economic stage, where an individual person or a single household satisfy their primary wants as best they can, without any more elaborate mechanism than division of labour according to sex, and an occasional spasmodic bit of barter. Instead, we find a state of affairs where production, exchange and consumption are socially organised and regulated by custom, and where a special system of traditional economic values governs their activities and spurs them on to efforts. This state of affairs might be called —as a new conception requires a new term—Tribal Economy.

The analysis of the natives' own economic conceptions of value, ownership, equivalence, commercial honour and morals opens a new vista of economic research, indispensable for any deeper understanding of a native community. Economic elements enter into tribal life in all its aspects—social, customary, legal and magico-religious—and are in turn controlled by these.

[1] See article by the writer, "Kula: Circulating Exchange of Valuables in the Archipelagoes of Eastern New Guinea," *Man*, July, 1920.

It is not for the observer in the field to answer or to contemplate the metaphysical question as to what is the cause and effect—the economic or the other aspects. To study their interplay and correlation is, however, his duty. For to overlook the relation between two or several aspects of native life is as much an error of omission as to overlook any one aspect.

B. MALINOWSKI

CORN PRICES AND THE CORN LAWS, 1815–1846

MR. R. G. HAWTREY'S articles on the Assignats and the Bank Restriction of 1797 have raised high hopes in the breasts of economic historians; for they have shown the aid which exact economic history can render to the elucidation of economic theory. It is much to be desired that the same service should be rendered to the economics of agriculture. How large a part of the classical political economy was built on corn is sufficiently well known. Some of the classical economists, notably Malthus, had a broad historical sense; others, like McCulloch, had an encyclopædic knowledge of facts; others, again, like West and Ricardo, were keen critics of particular episodes in financial policy; but there was only one among them who combined history and theory in the sense in which they were combined by Adam Smith. This was Thomas Tooke (1774–1858), economist, statistician, and Baltic merchant. His *magnum opus*, *The History of Prices*, is unfortunately so rare and expensive that the present generation can hardly procure it, except from a library; but it possesses much more than antiquarian value. Dealing alternately with currency and corn prices, Tooke achieved a double result. He led the way along the path which Mr. Hawtrey has followed with such enviable success; and he advanced along a second path, where he still awaits a follower. This is not surprising. Currency theory and Treasury experience are so intimately associated that the time was bound to come when a Treasury expert would visualise for us the reactions of the currency to the disturbances of the Napoleonic wars. But though we have a Ministry of Agriculture and Fisheries, we have not a Minister of Corn Markets; and it is to be feared that our agricultural experts would find little profit in West's Law of Diminishing Returns or Ricardo's doctrine of Rent. Mr. N. S. B. Gras, an American writer, has given us recently *The Evolution of the English Corn Market* down to the eighteenth century, but this work stops at the point where the theorist would be most likely to make liaison with history, and we feel greatly the need of a continuation, such as Thomas Tooke would have written if he had lived in our day and been asked for an historical introduction to a

governmental report on "corn production and bread prices after the war." We should have studied it with the assurance that, as an expert, he would be alive to the indirect consequences to which the amateur is so apt to be blind, except in retrospect. The few pages which follow were inspired by Tooke's work, and are offered to readers of this journal in the hope of providing yet another point of contact between the historian and the theorist. The writer, however, must confess that he is as innocent of the secrets of Mark Lane as was Edward West, the young barrister from Oxford, of the economy of an English farm.

In the period from 1815 to 1846 the Corn Laws had a material influence on prices; but how far, if at all, they raised prices it is impossible, even approximately, to determine. Several of the witnesses before the Import Duties Committee of 1840—whose report is nothing more than a manifesto in favour of Free Trade —attempted the task, but arrived at their conclusions by making assumptions which were unwarranted. Thus Mr. Bowring said[1]: "Supposing that of every sort of corn the consumption of this country is 45 millions of quarters; I do not speak of wheat only, but corn generally; upon that, if (*sic*) the rise of price be *5s.* per quarter, it is clear that the Corn Laws impose an indirect taxation of more than 11 millions sterling upon the community." And, again, Mr. Smith, President of the Manchester Chamber of Commerce: "Assuming that the consumption of grain of all kinds in this country be 60 millions of quarters per annum (Mr. McCulloch, I think, estimated it at 52 millions of quarters many years ago); supposing (*sic*) that the effect of the Corn Laws be to raise the price of grain in this country 10*s.* a quarter higher than it would otherwise be, and supposing that the consumption of all other agricultural produce together be equal to the consumption of grain, then you have a consumption equal to 120 millions of grain, which at 10*s.* a quarter would amount to 60 millions of money."[2] If we confine these two estimates to cereals (for this is what Mr. Bowring meant by "corn generally" and Mr. Smith by "grain of all kinds"), Mr. Smith's figure must be halved, Mr. Bowring's remaining at £11 millions and Mr. Smith's becoming £30 millions. But these were estimates for a single year; and the orators of the Anti-Corn Law League, multiplying by 25, so as to cover the whole period between 1815 and 1840, arrived at a total which paralysed the imagination and elicited appropriate rage.

[1] *Commons' Committee on Import Duties,* 1840. Q. 692.
[2] *Ibid.,* Q. 2153.

If there had been a regular duty on grain, and if all sorts of grain had been at all times largely imported from abroad, this method of calculation would have been on the right lines. But neither of these conditions was fulfilled.

Under the law of 1815 no duty was paid at all, and it is impossible to calculate the indirect effects of a non-existent tax. The calculation was no easier with the sliding scale introduced by the Act of 1828; for most of the corn was held up until the duty was nominal. In 1838, for example, out of 1·7 million quarters of imported wheat, 1·2 were entered at the duty of 1*s*.[1] It is even possible that the violent fluctuations which these laws occasioned may have caused the total of wheat sold in a particular year to fetch in the aggregate a lower price than it would have fetched had there been no restraints on importation. In this case the loss of value would be an index of the burden on the nation and would be comparable with the kind of loss which might occur if organised speculation in the world's wheat markets was repressed by law. Furthermore, even if we suppose the amount of protection afforded by the Corn Laws fairly translated into a fixed duty of 5*s*. or 10*s*. or 15*s*., it is not allowable to argue that English prices must have been this much higher than they would have been under Free Trade. For in the period between 1815 and 1846 there were years in which, from the abundance of the home harvest, the country practically fed itself at prices which would not have allowed of profitable importations of any magnitude. There were years, too, in which, through the failure of the Continental harvests, there was almost no wheat available for shipment to England, and in which the little that did come in would have commanded the same high price, Free Trade or no Free Trade.

These estimates, however, were a fair party retort. For British growers perpetually assumed that in normal times, if deprived of a protective duty of something like 20*s*. a quarter, they would be smothered beneath a deluge of foreign wheat. It was, therefore, natural for their opponents to reply: "In normal times, when you have this protection, the price of your wheat is *pro tanto* higher." If the growers protested, "But in point of quantity England nearly feeds itself, not deriving, even in short years, more than one-twelfth of its supply from abroad," the Free Traders could, and did, in their turn retort, "This independence is nevertheless purchased at a price, and unnecessarily purchased, when the bounty of foreign lands might be made to flow to

[1] *Cf.* Peel's speech, February 9, 1842.

Britain in exchange for British goods. You talk of insurance against famine, but do you realise the vastness of the premium?"

What we really want for an impartial estimate of the influence of the Corn Laws on prices is some notion of the range of foreign resources which England actually commanded, and of the degree in which they were capable of extension had there been no restrictions on trade. To understand the position in 1815, we must go back for a moment to the beginning of the century.

Early in 1800 a corn merchant communicated to Parliament [1] the following information concerning the possibility of foreign supplies from the preceding harvest: "The supply will be moderate; the crops in general abroad have not been very productive; and in some parts, where we usually look for supplies, the exportation has lately been prohibited—I mean the Prussian provinces bordering on the Elbe. Our principal source of supply may be looked for this year from the Baltic, and chiefly from Poland; for the produce of the harvest in the Prussian provinces bordering on the Baltic has been unusually bad, and the quality very light and inferior. A considerable quantity may be looked for from Poland, if there is no obstruction to its passage to the shipping ports. . . . The King of Prussia has already prohibited the export of all other grain but wheat; and it is apprehended that prohibition may be extended to wheat, particularly in the event of a further advance in the prices in Great Britain, which might create an alarm in those countries. Some quantity of wheat may also be expected from Russia. . . . The exportation of corn is strictly prohibited from Holland, Flanders and France. . . . The produce of the crop in America last year exceeds that of any year for the last seven years, but is far short of what has been the produce preceding that period; the reason is the devastation caused by the Hessian fly, which has discouraged the growth of wheat."

During the continuance of the war the restraints on import did not come from the side of England. In the worst years the British Government went out of its way to bring in foreign food. In 1795 all neutral ships bound with corn for France were seized and their cargoes purchased; while Government agents bought corn in the Baltic ports. Between September, 1795, and September, 1796, a bounty, varying from 10*s*. to 20*s*. per quarter, was offered on imported foreign wheat. In 1800 the bounty was repeated in a different form. Importers were guaranteed the difference between the average price of English wheat in the second week

[1] To the Commons' Committee on the Assize and Making of Bread, which reported February 10, 1800.

after importation and a price of 90*s*. (extended in 1801 to 100*s*.). But inasmuch as the price continuously exceeded 100*s*. in both of these years, the measures, while lending confidence to importers, cost the Government nothing. Between 1803 and 1813 importers of foreign grain had to furnish themselves with licences which were issued by the Privy Council. These were either general licences, which covered corn as well as other things, or special licences (issued only from 1809 onwards) for corn only. Objection was raised to them by Francis Horner in 1808. Nobody, he complained, knew on what principles they were issued; the fees paid for them amounted to a tax on imports; it was a serious breach of the Constitution that the Executive should thus take upon itself the levying of taxes.[1] But the licences cost very little and were only intended to keep foreign trade under the control of the Admiralty.[2]

Napoleon, on the other hand, tried to starve England by withholding Continental supplies. When this failed, he reversed his policy and tried to drain England of its bullion by encouraging exports of corn and prohibiting imports of British manufactures. Such exports were also conducted under a licence, which, unlike the English licences, cost a substantial sum, and were reckoned in 1813 to add 10*s*. to the cost of importing a quarter of wheat.[3] By a smuggling trade at high profits, English exporters penetrated the barriers of the Continental system and maintained the balance of trade. In Poland, whence the corn was derived, a great trade in British goods sprang up, warehouses were established and roads were improved. Goods, intended originally for consumption in the southern parts of Europe, were transferred to the Baltic, and the mode of packing was altered to allow of conveyance into the interior in the small carts of the country.[4] Free Traders in later years recalled these feats of British industry when they wished to show the improbability of a total cessation of imported food, even in the event of war.

Peace came in 1815. But the Continental countries which were the theatre of war took longer to recover from their prostration than the island kingdom which furnished the money for it. France for a time dropped out as an exporter. Between 1815 and 1828 England derived its foreign supplies (which were only a fraction of the total home consumption) either from America, whence it was shipped in the form of flour, or from the Baltic

[1] *Hansard*, 1st Series, X., 183.

[2] For a list of the licences issued see Appendix to *Report of Commons' Committee on Corn*, 1813.

[3] *Lords' Committee on Corn*, 1814, p. 112.

[4] *Ibid.* Evidence of Mr. Isaac Solly, p. 77.

countries, the latter being the main source and Dantzig the main port of shipment. Both in America and England the conditions of supply were peculiar. "More than half of America [*sc.* the U.S.A.] is cultivated by slaves, that is an expensive mode of cultivation; the other part, which does not yield more corn, if so much as suffices for its own consumption, is cultivated by a free peasantry; they raise other productions, though not corn, cheaper than the slaves; it is a singular circumstance that almost all the corn which comes to this country from America is the produce of countries cultivated by slaves." [1]

In the Baltic countries, too, the conditions of production were very different from those prevailing in England. Whereas in Great Britain one-half of the inhabitants were providers of food and brought to market one-half of their produce, in the Baltic countries the cultivators consumed nine-tenths of their produce on the farms and brought only the remaining one-tenth to market for consumption at home or export abroad. Moreover, Napoleon's industrial and military operations had produced an abnormal position. The production in Europe of Colonial wares, such as sugar, indigo and tobacco, of which Napoleon was deprived by England's command of the sea, caused a diversion of good land from ordinary agriculture and a consequent scarcity of agricultural produce, which was met by the ploughing up of very poor lands. Hence when peace came in 1815, there were a large number of petty accumulations in the hands of growers, and the land temporarily diverted to Colonial produce was restored to the production of grain. The position presaged a severe drop in prices. But agriculture being still in the main *Natur-Wirthschaft* (the poorer classes living on potatoes and the more prosperous on rye bread), the declension could not reveal itself in the commoner items of agricultural enterprise. It was therefore concentrated on wheat, which the nobles of Poland and Russia grew as a speculative surplus to be sold for what it would fetch on the best foreign market. This, hitherto, had been England. In 1814, for example, England was computed to consume two-thirds of the total corn exports of Poland and to warehouse for a time a part of the remainder; and in return, as we have seen, English manufacturers had the biggest share in the import trade into Poland.[2]

The price of wheat in Dantzig was regulated by, and moved in sympathy with, the price on Mark Lane. A rise of price, sufficient to open the English ports, was followed by an immediate

[1] *Commons' Committee on the Distressed State of Agriculture*, 1821. Evidence of Wm. Jacob.

[2] *Commons' Committee on Corn*, 1814. Evidence of Isaac Solly, p. 84.

flow from the Baltic ports of wheat which had been waiting patiently for its only good market. Sufficiently prolonged, low prices in England, instead of being met by a disposal of the produce elsewhere, might quite likely force the Polish nobility to revert to the production of staples such as rye and to retire from foreign production. The position for the moment seems to have been that rare one in which a tax imposed by the importing country would have been paid mainly by the foreigner, enriching the British Treasury without burden to British consumers.

But to British growers this was small comfort. The Pole's dependence on England was to them his chief offence. It is possible that a faint recognition of the Continental situation may have induced the legislators of 1815 to be content with nothing less than a prohibition till scarcity was really acute. But prohibition, instead of lessening the evil, heightened its psychological influence. From 1815 right down to 1828 the thought of the Polish corn piled up in bond and ever piling was a nightmare to the British farmer. Forth it would pour, at the first opportunity, heedless of the price it fetched. From the behaviour of the bonded corn under abnormal conditions it was erroneously inferred that there was a limitless supply growing in Poland which would be offered at the same low price were the trade in corn free. As a contemporary writer observed: "It is this accumulation, not the supply which would regularly reach us were no prohibition in existence, that depresses the agricultural interests." [1]

It is characteristic of a seasonal commodity like wheat, when it is also a staple of subsistence, that it exhibits in the market a high degree of inelasticity. That is to say, a small excess in the supply of corn, compared with the average rate of consumption, is apt to cause a fall in price very much beyond the ratio of the excess. When the small excess comes from a distance, and when its terrors by unfortunate legislation are bulked, its effect is greater still. There was sufficient truth in the farmer's diagnosis to blind him to his greater errors. Nothing could have alleviated his apprehensions short of a pilgrimage to Poland and a prolonged sojourn when he got there.

William Jacob, Comptroller of Corn Returns, made two such journeys on behalf of the Government, visiting, among others, the celebrated German economist von Thünen at his estate in Mecklenburg. In his second report (1828), from which we have already quoted, he expressed the opinion that the extensibility of the foreign supply either immediately or in the calculable future

[1] William Jacob, *Second Report*, 1828 (see note on p. 24), p. 127.

was very small. "At the present time, had the harvest of 1827 required it, it is doubtful if ten days' consumption of wheat could have been drawn from the whole Continent, even at 100 per cent. advance on the prices of that period."[1] As to the future, he was of opinion that the technique of production, the fertility of the soil and the accumulations of capital in Continental Europe were such that "if a great portion of our necessary supply should be wanted from foreign countries, there is no probability that it could be furnished without such an advance of price as would be enormously heavy."[2] "Estimates," he went on, "have been presented to the public, founded on the supposition that twenty millions (£) might be saved to the public annually by the importation of ten million quarters of corn at forty shillings a quarter less than our English price, which sum has been represented to be extorted from the pockets of the community to gratify the luxury of the landed proprietors and the greedy selfishness of the farmers; though the authors of such estimates must have known, or must have been woefully ignorant if they did not know, that the demand of one-twentieth part of what they reckon upon could not be extracted from the whole Continent without raising the price there as high as, or even higher than, the average price in England."[3]

From 1828 to 1846 England continued to depend on the Continent of Europe for the greatest part of its foreign supplies. During the eleven years 1828 to 1838 the total annual importations of wheat and wheat flour were considerably under one million quarters, and of that quantity more than three-fourths was derived from Germany and the north of Europe. During the four years 1839 to 1842 the importations rose to 2·5 million quarters annually, and a considerable part of these imports were, for the first time, obtained from France, Italy, Canada and the United States. During the three years 1843, 1844 and 1845 the imports again fell to little more than one million quarters, and three-fourths of this import were from Germany and Prussia. In 1846 the Corn Laws were repealed. During the nine years 1846 to 1854 the annual imports rose to the very big figure of nearly five million quarters, and a very considerable part of that supply was derived from France, Italy, Turkey, Egypt and Syria, Canada and the United States.

Is it possible to infer from this that, if repeal had come in

[1] *Second Report* (1828) *presented to the Lords of the Committee of H.M.'s Privy Council for Trade, respecting the Agriculture and the Trade in Corn in some of the Continental States of Northern Europe*, p. 131.

[2] *Ibid.*, p. 98. [3] *Ibid.*, p. 129.

1828 when the Duke of Wellington's sliding scale was adopted, or in 1838 when the agitation of the Anti-Corn Law League began, the big expansion of imports which followed after 1846 would have followed after either of these earlier dates? Once again, the materials for an exact answer are not available. The case for such a view is that the prospects of a steady foreign trade with England would have materially stimulated the recovery of Continental agriculture and materially hastened the expansion of America. But each country, it must be remembered, had its own independent developments, in which the course of its internal affairs played much the most important part.

Thus it is hard to believe that the American policy of land settlement or the financial chaos which frustrated it in the 'thirties would have been altered or alleviated by freedom of trade with England. It was the adoption of a liberal land policy and the return to healthy finance which enabled America in the late 'forties to appear as a serious factor in the international market for wheat. Our final judgment, therefore, is this: Corn Law Repeal in 1828 would have been an act of faith, hazardous in the light of precedent, but justified by events. Almost as much wheat would have been grown from British soils, and prices would have been considerably steadier at a slightly lower level. The repeal of 1846 removed obstructions just when their retention would have caused them for the first time in Corn Law history to raise materially the price of English bread.

The course of prices between 1846 and 1855 forms an interesting comment on this judgment. By repeal the manufacturers got what they wanted, a greater flow of imports and a steadier foreign market for their own goods. But what they held out to the public and what the agriculturists feared was a material reduction in the price of food, and this did not occur. The quinquennial average of wheat prices (per quarter) in England was as follows:—

	£	s.	d.
1841—5	2	14	9
1846—50	2	11	10
1851—55	2	16	0

Whereupon the advocates of Protection declared that the predictions of Cobdenites were falsified and the arguments for repeal were lies. Certainly their predictions were falsified, but none the less their case was good. For prices would have been still higher and still more abrupt in their fluctuations if the Corn Laws had continued in force after 1846. This general proposition can be established in detail. From 1847 to 1852 the home harvests

were very bad, but abroad (including France) they were good. Wheat therefore was imported in large quantities and checked the home rise. Tooke[1] estimates that in September, 1848, when the price advanced to 56*s*. 10*d*., it would certainly have reached 73*s*. under the operations of the old law, and that similar situations would have occurred in subsequent years to the great privation and peril of the country.

The harvests of 1853 and 1855 were bad; that of 1854 was very good. But prices rose the whole time. The reasons why, between 1853 and 1855, prices were higher than in the years immediately preceding were, first, because in 1854 and 1855, unlike 1847 to 1852, the foreign harvest, particularly in France, was bad, so that no cheap foreign wheat was available; and, secondly, because, even when we had a good harvest in 1854, the shortage abroad was so great that British wheat was actually exported to realise the high prices there obtainable. The higher level was maintained and intensified in 1855 by the outbreak of the Crimean War, which obstructed some of the usual sources of supply, especially Russia, and raised freight charges from those sources which remained open.

All that repeal could do, it did. In those years when the home supply was scarce and the foreign supply good, free imports kept down home prices and steadied them by assuring constant access to the widest available market. When both home and foreign supplies were deficient, and when in addition there was war, prices inevitably rose. Free trade in wheat does not create cheap bread; it merely presents an artificial rise in the price of the raw material of bread.

It is one of the ironies of history that during the half-century in which British agriculturists lived in terror of a bogey the bogey did not exist. British farming surmounted the repeal of the Corn Laws on a scale of ascending prices. The more immediate causes of this ascent we have indicated. Remoter influences were the general rise of prices due to the discovery of Californian gold in the 'fifties, and a growing industrial population at home, unaccompanied by any great expansion of population in America, which, in the 'sixties, was prostrated by civil war. Then in the 'seventies the bogey came from a quarter to which men had hardly been trained to look. McCulloch in 1841, with the classical economist's sure instinct for the short run, wrote: "It is needless to take up the reader's time by entering into any lengthened details with respect to the corn trade of the U.S.A. It is abun-

[1] *History of Prices*, V., 57.

dantly certain that we need not look to that quarter for any considerable supplies."[1] But from that quarter in the 'seventies the bogey descended. Its feet were ships of steel, its arms railroads stretching over the prairies, and in its belly was Chicago wheat.

C. R. FAY

[1] *Statements Illustrative of the Policy and Probable Consequences of the Proposed Repeal of the Corn Laws* (1841), p. 8.

PAST ACHIEVEMENTS AND FUTURE PROSPECTS OF INTERNATIONAL LABOUR LEGISLATION

SOME years after the British Factory Act of 1833 was in force this law became the pattern of similar measures in Prussia, Russia, France and elsewhere. "Being in Paris in the autumn of 1838," writes Leonard Horner, the celebrated factory inspector, "I learned from my friend, M. François Delessert (banker and member of the Chamber of Deputies), that he and others had been watching very attentively the operation of our Factory Act, and had come to the determination to endeavour to obtain legislative protection for the same class of children in France. He put into my hands some documents which abundantly proved that interference on their behalf was as necessary as it had ever been in England."[1] In the same year, 1838 to 1839, the economist Adolphe Blanqui, discussing the difficulties which a legal maximum working day of thirteen hours would cause to a country in competition with another one with a fifteen-hours' day, came to the conclusion that only by international treaties could the danger of such competition be avoided. "Why, indeed, only conclude alliances to kill other nations, why not treaties for the conservation of their life and to render it happier?"[2] This idea was welcomed by social reformers of different shades, like Dr. Villermé and Alban de Villeneuve, and took shape in different *Appeals to the Powers*, written by Daniel Le Grand, an Alsatian manufacturer, the first draftsman of international labour treaties (1848). Governments remained deaf to these demands, the more so when the congress of the first workingmen's international meeting at Geneva in 1866 asked for a universal eight-hours' day. But after the disasters of the Commune in Paris in 1871, some German economists, like Adolph Wagner, Schoenberg, Thiersch, Rudolph Meyer, returned to the French proposals of Daniel Le Grand of 1848. Their writings in favour of international labour treaties were felt to contain an important

[1] L. Horner: *On the Employment of Children in Factories and other Works in the U.K. and in some Foreign Countries*, 1840, p. 20.

[2] *Cours d'économie industrielle*, 2me éd., 1838–39, p. 119–120.

argument in defence of the Swiss Factory Act of 1877 against a campaign for its abolition on account of its injurious effect upon export industries. Thus Switzerland became a pioneer of international labour legislation. After a failure of the first diplomatic negotiations in 1880, the Swiss Government repeated the attempt in 1888, but withdrew invitations to an international conference when the German Empire had decided to convoke such a conference at Berlin in 1890. Owing to lack of sufficient preparation, to the hostility to State intervention into labour matters and to the secret opposition of Prince Bismarck, the Berlin Labour Conference failed to establish international labour treaties; the resolutions of the Conference took the shape of "wishes" not differing greatly from the *pia desideria* of private congresses. The failure of the Berlin Conference marked the beginning of a strong reaction against labour legislation extending from 1890 to 1900 on the Continent.

But since 1897 a new international movement had arisen in Switzerland, France, Germany, and Italy leading towards a reconciliation between the different political parties which allowed them to meet upon the neutral basis of labour legislation. National sections were formed for this purpose in several countries; their representatives met at Paris at a Congress in 1900 and founded the International Association for Labour Legislation.

The task of this Association, a federation of national sections for labour legislation, was to serve as a bond of union to all friends of State intervention for improving the conditions of employment, to prepare in a scientific way petitions and memorials in order to establish a basis for international treaties, to publish a bulletin containing the current labour legislation of the world, and to give information to Governments and to members of the Association on labour questions. The scientific task was entrusted to a special institution created by the International Association and supported by contributions of national sections as well as by Government grants—the International Labour Office in Basle (May 1st, 1901, to July 15th, 1920).[1] The new institution met with a good deal of scepticism and pessimism at its beginning in academic circles and with a benevolent aloofness in the labour world; no amount of booming propaganda would have been able to render the new institution popular, but would have only aroused the suspicions of the official mind. The professional jealousy of an outsider's initiative and the usual lack of funds of semi-official institutions like this were acting as drawbacks to

[1] Readers of The ECONOMIC JOURNAL will find a description of the initial work of this office in Vol. xiii. (1903), p. 438, of this *Journal*.

the efficiency of the International Office from the very beginning. Nevertheless, the following achievements must be ascribed to the united activity of the International Labour Office and Special Committees of the International Association for Labour Legislation :—

(1) The *Bulletin of the International Office* (since 1902 in a French and a German edition, and since 1906 in an English edition) became the basis of information on foreign labour legislation to labour departments, members of Parliament, trade unions, and employers' associations; the *Bulletin* is not merely a compilation of recent labour legislation, but contains their historical analyses, Parliamentary history, and bibliography. Being the work of only two or three officials, the Office, understaffed for lack of funds, had to submit to the reproach of delays of publication. A similar publication had been already launched by the Belgian Government—the *Annuaire de la Législation du Travail*—since 1897, but no work in the English language was in existence before the *Bulletin.*

(2) The second task was the preparation of international labour treaties. The Assemblies of the Committee of the International Association met successively at Basle (1901), Cologne (1902), Basle (1904), Geneva (1906), Lucerne (1908), Lugano (1910), and Zurich (1912), each meeting carrying resolutions with a clause indicating its execution, or establishing sub-committees meeting in the years between two assemblies. Proceeding on the line of least resistance, the question of prohibition of white phosphorus in the match industry, the destruction of necrosis, and the prohibition of industrial night work of women during eleven hours were first selected as fit for international treatment. International inquiries were held for this purpose by the International Labour Office and their results published in two volumes, and upon this basis memorials were drafted and a petition for the convocation of an international conference filed to the Swiss Federal Council. The Swiss Executive first convoked a conference of experts to Berne in 1905 and then a diplomatic conference in 1906, the first drafting the international treaties, the other signing it, with the proviso of ratification by the competent authorities. This machinery some Governments—the British, French, and Swiss particularly—tried to supersede in 1906 by an International Commission. But the proposal only reached the shape of a "recommendation." With regard to the treaties themselves, they were most important as specimens of a new kind of international compulsion. They broke the ice of rigid national

sovereignty; the initiative had been taken by a treaty concluded between France and Italy in 1904 concerning the introduction of factory inspection in Italy, care for Italian children in French factories, and payment of savings on an international basis. For certain Continental States, like Belgium, the prohibition of the night work of women was the beginning of labour legislation for adult persons; for England the white phosphorus treaty was a novelty, to which the United Kingdom adhered in 1908; and this measure of public health was adopted in various ways by all industrial countries with very few exceptions, the United States making, by a federal taxation measure, the dangerous processes in the match manufacture financially impossible.

This success led to further attempts of international treaties; new treaties were to prohibit the night work of male young persons under eighteen years (in most advanced countries already under identical regulation with women) and to introduce a maximum ten-hours' day for women and young persons.

The International Association for Labour Legislation had thus, with all its fragmentary work of a pioneer, been mapping out the subjects which a systematic international co-ordination would have to deal with, when the war broke out. Under the strain of its demands labour legislation was suspended. But very soon the reaction against compulsory labour sets in: medical experts, like Dr. Stanley Kent, proving that overtime and Sunday work do not in the long run relatively increase production; and the trade unions trying not only to restore the former conditions of employment, but to improve upon them. In Germany some concessions were indeed granted by military authorities, who, *e.g.*, were the first to establish minimum wages in trades supplying the Army, while in France the same principle was adopted by Parliament during the war. In Great Britain, the United States, and Italy unrest was felt since 1916 in the trade union world, which the resolutions of the Leeds Conference of the organised working men of the Allied Powers were trying to obviate, asking for the inclusion of international labour clauses in the Peace Treaty. The inter-Allied labour programme was very largely based upon the pre-war resolutions of the International Association for Labour Legislation. The new platform was accepted by the trade union federations of the countries of neutral and Central Powers with some modifications at their meeting at Berne in October, 1917. On June 11th, 1918, the Bureau of the International Association for Labour Legislation filed a petition to the Swiss Federal Council asking for the systematic fulfilment of international labour

legislation within the Peace Treaty. Soon afterwards a book of the present writer, published some months later by the Federal Labour Department of the United States under the title *International Labour Legislation and the Society of Nations*, tried to explain the sphere of activity to which, after the war, international labour legislation could extend. After the Armistice the Socialist and the Trade Union International met in February, 1919, in Berne and adopted a labour charter, which was presented to the statesmen assembled in Paris. Here the French Section of the International Association and the Chamber of Deputies had already taken the initiative to ask for a labour commission among the preparatory bodies of peace. A draft emanating from the British Ministry of Labour served as a basis to the Paris Commission on Labour. From them Part XIII. of the Treaty of Versailles has taken its origin. With this document the idea of systematic international labour legislation has been officially recognised; it is the Magna Charta for the world of labour, in so far as there is left no doubt that "social justice" is indispensable for the establishment of peace, and that the latter is imperilled by conditions of labour "involving such injustice, hardship, and privation to large numbers of people as to produce unrest," etc. Secondly, the Labour clauses of the Treaty went further with regard to the regulation of hours than ever the Leeds resolutions of 1916; the eight-hours' movement had acquired such an international strength since October, 1918, that it was felt to be ripe for some form of international settlement. Thus the new Labour clauses included "the adoption of an eight-hours' day, or a forty-eight hours' week, as the standard to be aimed at where it has not already been attained," just what the Berne Congress of the second International had asked for early in 1919.

The demands of the Berne charter of labour were thus partly recognised, the policy of the League of Nations including also freedom of combination, the minimum living wage, Sunday rest, the abolition of child labour, the protection of young persons, equal remuneration to both sexes for equal work, equitable treatment of foreign workmen, and enforcement of labour laws by State inspection. This programme embodies the principles of Anglo-American trade unionism; the Americans quite logically exhibited like a trophy the first article of their Clayton Act, by which they had recuperated the legal position of trade unions against the application of anti-trust legislation, "that labour should not be treated merely as a commodity or article of commerce."

The difference between the decisions of Paris and the Berne resolutions lay in the conception of machinery. The Leeds and Berne resolutions of the International Congresses of Labour had claimed for a permanent Commission, in which Governments and trade unions should be equally represented, co-operating with the still existing International Labour Office in Basle, and they thus recognised its neutral and scientific character. But this machinery was now felt not to offer any more a sufficient political outlet by Parliamentary discussion between employers and working men in a time of unrest and discontent. The last International Labour Conferences had met at the request of the Swiss Federal Council only with a seven years' interval. As Mr. G. N. Barnes puts it: "Instead of leaving international action to the chance initiative of some philanthropic State, which, in response to a long campaign against some particular feature of industrial life, issued an invitation to other States (which they could accept on conditions or refuse altogether) to send officials to a conference, there is now a permanent machinery always in action. It is now provided that a conference containing not only representatives of the Governments, but also of employers and trade unions from every country, shall meet at least once in every year."[1]

The permanent organisation thus construed, and somewhat similar to the International Institute of Agriculture in Rome, consists of a general conference of representatives of the States adhering to the League of Nations and an International Labour Office controlled by a Governing Body. The International Labour Office was by the Treaty (Art. 392) to be established at the seat of the League of Nations as part of the organisation of the League. The new International Office, therefore, had to take its seat in Geneva since August, 1920. The rules of representation for the General Labour Conference of Representatives and for the Governing Body of the International Office are: two representatives of Governments, one of the employers, one of the workers; the danger of "national blocks" is checked by the provision that every delegate shall be entitled to vote individually. The General Labour Conference has to determine whether the proposals adopted by them should take the form of recommendations or of draft international conventions for ratification by the member-States. In either case, a majority of two-thirds of the votes cast by the delegates present is required on the final vote, instead of the usual unanimity of diplomatic conferences. And now the question of ratification arises. In the preparatory com-

[1] *Labour and the Peace Treaty.* Issued by the Ministry of Labour, 1920, p. 4.

mission of the Treaty the Belgian, French, and Italian delegates had proposed to give the Labour Conference power to carry, under conditions to be determined, resolutions possessing the force of international law. But this idea of an International Labour Parliament was not agreed to; the Treaty merely obliges members of the Conference to bring the recommendations or drafts of international conventions before the competent authorities for the enactment of such measures, in no case later than eighteen months from the closing of the session of the Conference. No further obligation shall rest upon a member-State if its Parliament refuse to accept a convention or recommendation. If the authorities accept, but fail to secure the effective observance, and if employers' or workers' associations complain to the International Labour Office about such contraventions, the Governing Body communicates these representations to the defaulting State, and may publish the statements of the case. If no satisfactory result is obtained, a Commission of Inquiry will be constituted by the Secretary-General of the League of Nations. The members of the General Labour Conference will then either accept the findings and the proper measures of economic coercion of the Commission of Inquiry, or refer the matter to the Permanent Court of International Justice, the decisions of which shall be final. It is clear that no judgment on the efficiency of the new framework can be given before June, 1921, the last term for ratifications.

The first two meetings of the Annual Labour Conference have now taken place. The first one was invited to Washington in October, 1919, by the Government of the United States, the other one took place at Genoa in June and July, 1920. The Washington Conference was fruitful in adopting six draft conventions: the forty-eight-hours' week was accepted by the first convention; this convention allows a fifty-six-hours' week for industrial processes to be carried on continuously by a succession of shifts. A second draft convention tries to engage member-States to furnish information on unemployment, to establish labour exchanges, and to secure equality of benefits for aliens in States which have established systems of insurance against unemployment. A third draft convention deals with the employment of women before child-birth; a woman shall not be permitted to work during the six weeks after confinement, shall have a right to leave work upon the production of a medical certificate, and shall be paid benefits sufficient for the full and healthy maintenance of woman and child, and be allowed half an hour twice a day during work-

ing hours if nursing her child. The Washington Conference restated also the Berne convention of 1906 prohibiting the employment of women during the night, and the draft convention of 1913 concerning the prohibition of night work of young persons; raising the age of protection from sixteen to eighteen, as proposed by the International Association, and finally added a draft convention prohibiting the admission of children under the age of fourteen years to mines, manufactures, construction work, and transportation. Recommendations were given principally with regard to social hygiene; thus the prohibition of the use of white phosphorus in the manufacture of matches was repeated from the Berne convention of 1906, besides the findings of the Sub-Committees of the International Association concerning the prevention of anthrax and lead-poisoning, were embodied in two other recommendations. In the same way the equality of treatment with regard to the admission of foreign workers to trade unions, and the establishment of efficient factory inspection and of a public service of social hygiene, were recommended.

The second meeting of the Labour Conference (Genoa, 1920) had been initiated by the French delegates in order to deal with the protection of seamen. Here difficulties arose from the fact that these questions had not been dealt with in previous meetings except by the transport workers themselves, that disinterested specialists are rare, and that in some countries competitive national interests are easily aroused by protective measures. Draft conventions were accepted by the Conference only concerning the age of admission of seamen; the age of fourteen was fixed; the obligation of paying an indemnity in case of unemployment by loss or foundering of any vessel was imposed, and employment agencies working for private profit were abolished in principle. The limitation of hours of work to forty-eight in the week, proposed by the International Labour Office, was lost, the required two-thirds majority having not been reached; the forty-eight-hours' week for the fishing industry and in inland navigation was recommended, without excluding different agreements; Governments were also invited to establish schemes of insurance against unemployment for seamen.[1]

While the new international organisation was sitting the International Association for Labour Legislation had convoked its delegates to Basle on July 6th and 7th, 1920. It was felt that, in view of what had taken place, the International Labour Office in Basle had been quietly extinguished; the International

[1] *Cf.* also *Labour Gazette*, August, 1920, p. 120.

Association was now to decide whether a new field of activity was open or whether the Association itself should disappear. The British Section of the Association not only insisted on the continuation of its work, but also proposed to declare in the new statutes what were to be the new aims of the Association if deprived of their International Office. The Association would press for the ratification of international conventions and for their enforcement to take effect upon the agenda of the General Labour Conference, and give new suggestions for labour legislation. The next meeting of the Association will take place in Geneva some days before the third meeting of the General Labour Conference (April 4th, 1921) and with the same agenda: the protection of dock and agricultural labour. While entertaining for this purpose the best relations with the new official body, the Association has publicly insisted upon its independent position.

Evidently the co-operation of national sections of the International Association, with all their experience of the heroic age of the movement for international labour legislation, would add an element of representation of ideas to the representation of interests grouped in the new organisation. New and young pioneers of labour legislation will thus find a field for activity and act as a healthy counterpoise against possible reaction in the future.[1] The development which the movement for international labour legislation has taken since the war certainly fully justifies all optimist prophecies. The humble intellectual Cinderella of pre-war times, maltreated by the lords of the heavy industries, without other means of defence but argument, and yet able to produce a *compelle intrare* for the basic general problems of labour legislation, has been elevated to the rank of international power. In order to maintain this power, a clear perception of the needs of labour is required. Once the general questions have obtained a temporary solution, the unprotected occupations will require the attention of labour legislation. Colonial labour should not be neglected, and the questions of protection to the emigrant workman will be ripe as soon as the United States join the official international organisation. But the whole trend of recent development proves that questions of prices, of wages, of profits, and of education and participation in industrial administration will form the real crux of the future. The complexity of these questions should promote the study of economic science,

[1] In England the British Association for Labour Legislation (London, 45, Mecklenburgh Square; President, Professor Sir Thomas Oliver, M.D.; Hon. Sec., Miss Ida Beaver) and in the United States the American Association for Labour Legislation (Gen. Sec., Dr. John B. Andrews, New York) are acting as centres of this activity.

especially among labour leaders; for only through them will reach the masses the conception that there is a code of labour, for all workmen of the world, which may be invoked at any time for the purpose of increasing personal values as well as the standard of the whole class. It is only by such constructive measures that industrial democracy will survive the dangers of industrial monopoly and military dictatorship of all colours, which have been the worst enemies of labour legislation long before the war.

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September, 1920.

CANCELLATION OF INTER-ALLIED DEBTS

The question of the payment of reparation debts by the Central Powers is not discussed in this paper. Discussion is confined to the question of inter-Allied Governmental debts, America, though only an "associate," being referred to as an Ally for the sake of brevity.

So long as the Allied Governments continued during the war to incur new obligations to one another, the choice between ultimate repayment and cancellation of inter-Allied war debts could only excite academic interest. And even yet the final settlement of Allied debts does not call for the immediate consideration of the Governments concerned, because, for the time being, interest is being allowed to accumulate. But this delay in the payment of interest has only been agreed to for three years, dating from April, 1919, in most cases. After this respite, interest, and probably some form of sinking fund, must be paid, unless an arrangement for the cancellation of war debts is made, or further delay is sanctioned.

At present the great bulk of inter-Allied loans is nominally repayable on demand or at short notice. This is, of course, only a financier's myth, because there is not the remotest possibility of any debtor Government being in a position to meet such a demand; yet the fact that the loans are nominally call loans might admit of the creditor Governments insisting on severe sinking-fund terms.

Inter-Allied war debts are mainly of two kinds; those of Continental Europe to Britain amounting to about £1,500,000,000, and those of Europe, including Britain, to the United States amounting to about £2,000,000,000. There are in addition, inter-Continental debts—for example, the Belgian and Russian debts to France; but such debts as these do not in the aggregate amount to a very great total.

France, Italy and Belgium each owe to the United States debts about equal to those which each owe to Great Britain, while the other European Allies each owe considerably more to Great Britain than to the United States. Lastly, Great Britain herself

owes to the United States a debt equal to about half the sums she is entitled to receive from the Continental Allies.

As the war progressed in violence, and the efforts of each country were increased, it became evident that the efforts of different countries could best be directed into different channels. Britain was not able immediately to mobilise a huge army and put it in the field against the enemy; but, on the other hand, she was able to render other much-needed assistance to her Allies, who could not supply all their vast requirements from their own resources. Consequently, early in the war Great Britain supplied materials to her Allies. The Treasury found it necessary to adopt some system for controlling the magnitude of these supplies: the system of debt creation commended itself as savouring of independence, yet being at the same time capable of control. At the time that these debts were created there was thus a very good reason for their creation, quite apart from the question of their ultimate repayment; and it is more than doubtful how far the final repayment of the sums loaned was really contemplated.

Quite naturally, each Ally, in the same manner as each British Government Department, endeavoured to secure to itself as large a proportion of the available finance as possible, looking upon its own needs with the prejudiced eyes of an interested party. Unless the Treasury exercised the greatest care in cutting the financial cake, there would not have been enough slices to go around. It was essential to strike a balance between munitions and food, between the needs of the British Departments and the needs of the Allies.

British Government Departments had to receive Treasury sanction to all expenditure, particularly to expenditure abroad. It was hardly possible, and certainly incompatible with the dignity of an independent State, for such strict control to be exercised over an Allied country as over a British Department. Consequently, aid to an Allied Government was made by loans, each of which was divided into two parts: the one part, money for purchases specifically approved by the Treasury, the other, money at the free disposal of the borrowing Government. These loans were for fixed monthly amounts, and were revised from time to time when it was seen that they were not of suitable magnitude. In general, these debts bore interest, but not invariably so.

Control was slight at first, because on the one hand the financial pinch was not great and the co-operation between the Allied Governments was still undeveloped, while on the other hand

there did not exist the machinery for the control of supplies to a foreign Power. Thus in the very early days the British Government was faced with one of two courses: either to give money to the Allies, letting them spend it as they thought fit, which, to judge from the scandals about the Russo-Japanese War, would not have been of much benefit in prosecuting the war; or to lend money in the hopes that a loan would be more carefully spent than a gift. It was not long before the Treasury set up a system of control in detail, but they still found the granting of loans preferable to direct subsidies as tending to secure economy.

Then, again, an important consideration in determining that the assistance should be in the form of loans rather than of subsidies was the question of gold reserves. The British Treasury had the utmost difficulty in furnishing the finance necessary for purchasing the munitions and food from America that were essential to the conduct of the war. Not only were American securities purchased or borrowed from the British public and used in order to pay our way in America, but literally hundreds of millions of pounds in gold coin and bullion were shipped to the United States. Considerably more than one hundred millions of this gold was borrowed from our Allies. Continental peoples are even more inclined to bow down and worship the golden calf than are even the august financiers of the City of London; so it was with the utmost difficulty that the Allied Governments were constrained even to lend the gold, which was essential for effecting purchases in the United States before that country entered the war.

One general principle, therefore, for inter-Allied financial relations during the war was that advances from one to another were considered as loans, not as grants. A second general principle was that each Government should bear the whole cost of all the expenses incurred on behalf of their own nationals, military or civilian, no matter where it was incurred. It was only by this means that efficient control and economy could be hoped for. Transport would be more economically managed if the Government whose troops were being transported nominally paid the cost, than if the transportation was nominally free. Munitions and food would not be wasted to such an extent if the Government whose troops used them actually paid for them, as if another Government was responsible for paying. The value of a gun is never so well realised when it is received as a gift as when it is purchased. In the interests of economy it was essential that each consumer should pay for all his consumption.

It is not the object of this paper to describe in detail the method by which the debts were created, but I must emphasise the fact that the creation of these book debts was a satisfactory method of limiting the funds expended, both on internal and on external purchases. Such limitation was indubitably necessary, as otherwise financial resources would have been squandered.

An example of control may be quoted with advantage. On one occasion an Ally entered into a contract for a purchase in India, and then applied for Treasury approval. The Treasury were unable to approve, as they believed that other purchases from India were more urgent, and that the supply in question could have been purchased elsewhere. The Allied Government was, as a result, forced to pay for the supply out of the free part of the advances made by the Treasury. This reduced the amount of free money available for general purposes, and thereby caused an adverse movement in the Allied country's foreign exchanges, because less free money was left for the support of the foreign exchanges, the purpose for which each Ally invariably used as much of its free money as possible. The Treasury were in a stronger position for criticising demands because they could point out that the Allied Government could always, if necessary, make any purchase at the expense of its foreign exchanges, if the purchase seemed of greater importance than the support of the exchanges. Thus the Treasury had a rough and ready criterion of the value attributed by an Ally to a particular requirement. The conduct of the financial side of the war consisted in determining the relative importance of different demands and rationing them in accordance with their importance and within the limits of available money.

Thus the system of inter-Allied debts was an admirable administrative machine. It made each Government feel that the need for economy still existed, though supplies came from abroad; but it was a most unfair system for a permanent settlement of inter-Allied financial relations. There can be no reason other than that of expediency which can be quoted in favour of inter-Allied debts. Justice is outraged by their existence.

A specific example actually encountered by the writer brought home to him with great clearness the anomaly of forcing those countries, which mainly furnished men, to pay tribute to those countries, which mainly furnished the other necessaries of war. The Italian Government purchased 6-in. howitzers and shells from the British Government during the war, paying for them at cost price out of the loans received. These guns were fired

by Italian gunners in support of Italian infantry. After the reverses on the Isonzo it became necessary for the assistance, which Great Britain was already according to Italy, to be greatly increased. Consequently, more guns and shells were sold to the Italian Government than before, payment being made from the credits opened against the Italian debt to Great Britain. Moreover, in addition, complete British batteries of howitzers were sent to Italy to support the Italian troops. In pursuance of a policy of involving Allied Governments in debt for debt's sake in return for assistance rendered, it would have been logically correct for Great Britain to have charged, not only the cost price of these guns and shells to the Italian Government, but also the expenses of keeping both the horses and the men. But, no! On the contrary, not only did Great Britain bear the whole cost of the guns and shells and the keep of the troops, but the Italian Government even charged Great Britain with such part of the keep of the troops, including their railway fares, as was supplied from Italian sources. Where is the logic in this? If England risked the lives of her men in firing the guns, surely she was all the more justified in charging for the shells fired, not to mention the other expenses, than when Italian gunners operated the guns and exposed themselves to the enemy. Having brought the argument thus far, it is but a short step in logical sequence to charge the whole cost of the British Expeditionary Force in Italy to the Italian Government, the cost of the British Expeditionary Force in France to the French Government, and so on. But, as has already been stated, the administrative advantage gained by the creation of inter-Allied debts, which was the justification for their creation, only existed where the Ally was responsible for administering the expenditure; this was the justification of the illogical course of charging for the guns when manned by Italy and not charging for them when manned by England. But it would be preposterous to make a final inter-Allied financial settlement on this basis.

If we revert to the methods of the Middle Ages, and behave in the same way as a company of mercenary troops in respect to a part of the costs of war and charge for the materials of war, why not behave in this way in respect to the whole costs of war and charge for everything? We would undoubtedly lay ourselves open to the charge that we were making a financially sound proposition out of the war; but are we not laying ourselves open to this charge anyway, by pursuing our present policy in regard to the inter-Allied debts due to us?

It is difficult to fathom the attitude of mind current in a nation, which willingly renders the utmost assistance possible, comprising men and munitions, on one part of the war front without expecting or receiving any material recompense in return, yet at the same time, elsewhere on the same front, renders less assistance, in the form of materials alone, but in this case demands pound for pound of the cost of such assistance, even going so far as to charge interest until the debt is paid. One might imagine that the Allied nations delighted in sacrificing the lives of their own men, and were actually prepared to pay for this privilege, inasmuch as they only charged for the costs of war when the lives of their own men were not at stake.

An American may deny that the purchase of wheat by France was an expense of the American Government which should in equity be borne by that Government, but this is nevertheless the case. France had millions of men under arms, which in an isolated world only containing France and the Central Powers would have been impossible, because these millions of men would have starved from lack of food caused by the shortage of labour due to the mobilisation of this vast army. But in the world as it actually is this huge mobilisation of French troops was possible, because America acquiesced in the existence of this vast army and supplied the food and munitions necessary to keep it and France alive. The world was divided into two armed groups. The greater, which was ultimately victorious, was divided into many sections, some of which provided mainly men, others mainly munitions and food. Now that the conflict is over, one section of the group should not attempt to transfer part of the burden of the war already borne by it to another section which has already borne a greater burden. Those sections which have suffered least from the devastation and loss of life entailed by the war should, if anything, bear a correspondingly greater proportion of the financial burden than that borne by those crippled by the loss of many lives. Yet should payment of inter-Allied debts be exacted the very reverse will be the case.

It is true that France would have been defeated by Germany if Great Britain had not entered the war in 1914, and would probably have suffered more than she will actually suffer, even if she is forced to pay her foreign debts. Again, it may be true that Germany would have been victorious if America had not entered the war in 1917. But both Britain and America came to France's assistance because Germany was the aggressor, and they considered that it was of paramount importance that the militarism

of the latter should be overthrown. Neither country entered the war in order to amass foreign credits at France's or any other Ally's expense. Both realised that the war would entail immense sacrifice, but entered it in order to rescue France and Belgium from the hands of Germany; yet now that the war is over they are attempting to shift part of the burden on to their less fortunate Allies.

It would be almost impossible to elaborate a scheme which would distribute the burden of the war equitably among the Allies. But undoubtedly the most unjust way imaginable would be for the present creditors to extort payment of their debts from the present debtors. Arguments can even be adduced to show that there would be some degree of accuracy in the distribution of the war burden if all inter-Allied debts were converted into credits of equal magnitude. Roughly speaking, the debts were incurred by those countries which had the higher proportion of men under shell-fire, and were made in favour of those countries which were doing proportionately less fighting, and which were for this very reason able to supply the other materials requisite to the conduct of war. The examples of France and America bear this out. The former did most fighting and is the biggest debtor, the latter did least fighting and is the biggest creditor. The loss of human life is approximately proportionate to the numbers engaged. And this loss is by far the greatest burden of war.

It is only by death and devastation that the world can mortgage its future in order to prosecute war; for the world as a whole is only the poorer to the extent that it loses productivity. The manufacture of war material, while entailing present sacrifice on the part of the world because the energy absorbed in it might have been used for other purposes, does not cause lasting sacrifice, does not mortgage the future, except in so far as repairs have not been carried out. But the practice of war destroys lives and causes devastation, thus leaving a permanent mark and throwing a burden on the future.

It has been said that an equitable valuation of war burdens would be well-nigh impossible. Yet it might be possible to make one which took account of work done for war purposes, of lives lost and maimed, of devastation, of respective populations and national dividends, of degrees of currency inflation, of payments received for reparation, of the value of mandates under the Treaty of Versailles. But, when all this was done, it would not be fair to open credits in accordance with the findings of the calculation,

because allowance should also be made for the importance of the war to each Ally. The war should in fairness fall more heavily (say) on France than (say) on America, because upon the defeat of Germany depended the existence of France as a nation, while the importance to America of the defeat of Germany was less vital. But, in fact, the burden of the war would be still the heavier upon France, even if debts were cancelled, because France has suffered so very much more from the war, apart from the question of inter-Allied debts.

When all the aspects of the question are taken into account, it will perhaps be the nearest approach to justice if all the debts are cancelled. It is true that France will still remain the greatest sufferer, but then she was the most vitally concerned. On the other hand, if the debts are left to stand as they are at present, the grossest injustice will be perpetuated.

Great Britain should not depend upon the action of the United States in determining her own action. At present Britain would willingly cancel all the debts due to her, provided America did the same. In a sense this is reasonable enough, but surely the action of America cannot turn a wrong into a right. If the debts due to Britain should in fairness be cancelled by Britain, the action of America cannot alter the case. Great Britain should act in this matter upon the principle of justice. She should therefore cancel the debts due to her.

R. Trouton

THE WEATHER AND CYCLICAL FLUCTUATIONS

FROM time to time various attempts have been made to obtain reasonably accurate forecasts of weather tendencies for long periods in advance. Ordinary forecasts are made from day to day by extrapolation from recorded conditions and tendencies, but even these are not invariably correct, and are, in temperate latitudes at any rate, limited to a very few days at a time. Seasonal forecasting, such as that of the Indian Monsoon, is a further extension of the same principle. Past experience shows some sort of correlation between certain foregoing data and the following seasonal weather, and from these a seasonal forecast can be made with a considerable probable error. When the period desired is measured in years only one resource remains available, and that is periodicity. All attempts to forecast the weather of future years thus reduce to an analysis of a more or less long series of past registers. The most obvious and powerful source of weather conditions is clearly the sun, and, apart from the diurnal rotation of the earth by which the sun is enabled to impose a twenty-four-hour period on the temperature variation, and an important semi-diurnal period on that of atmospheric pressure, the most important period in temperate latitudes is that of the earth's revolution round the sun, which governs the seasons, besides modifying the diurnal variations. The rotation of the sun itself has not hitherto yielded much evidence of variable control, and the only other solar period remaining is that of the sun-spot cycle. It would seem, then, that for long-range forecasting the phase of the sun-spot period must be of far greater importance than any other consideration. It cannot be denied that the tide-raising efficiency of the moon is so much greater than that of the sun that any indirect effect of tides on weather might be expected to vary in sympathy with the longer periods of the moon, and the period of between eighteen and nineteen years, covering the changes of the moon's latitude with respect to the ecliptic, has often been suggested. In this connection a few figures may be interesting: 1841 was a very cold winter at Greenwich; so also were 1860 and 1879; but 1898 was quite warm. On the other hand, 1846, 1857 and 1868 were decidedly warm, while 1879 was the coldest in eighty years.

Investigations over wide areas attribute to years of sun-spot maximum an effect of lower temperature over the world in general, in 1893 in particular, but that year was noted for a specially hot summer in Britain and France. It may be safely said that in our latitude the effect of the sun-spot phase, *i.e.*, the variation in solar radiation, on the weather is not sufficiently direct to enable a reasonable forecast to be made. Lately, in tropical and sub-tropical regions of South America, the effect of rapid short-period changes in solar radiation has been studied, and a possibility of forecasting from these is asserted; but these are short-range forecasts, and do not affect the point we are now discussing.

The question arises: "Does the variation of the solar radiation in the sun-spot cycle have a sufficiently direct effect in the tropics to give assistance to forecasters?" And the answer appears to be that both directly and indirectly this has been used by Dr. Walker in forecasting the Indian Monsoon by his method of partial correlation coefficients, but the coefficients obtained were not large enough to be of great value. Much larger coefficients were found connecting the Monsoon rainfall with some barometric data, but not one of these reaches Sir Napier Shaw's limit of 0·7, which he considers (*Computer's Handbook*, Section V.) the minimum for practical forecasting.

Bearing these things in mind, it is rather surprising to find in THE ECONOMIC JOURNAL for 1920 a paper by Sir W. Beveridge on "British Exports and the Barometer," in which he alleges that a period of fifteen and one-third years governs the price of wheat, and that bad harvests and high prices recur at not quite regular intervals of approximately this length. He even ventures a guarded prediction of unseasonable weather, bad harvests, and high prices, with possible famine in one or more of the years 1924, 1925, and 1926. I am not a student of economics, and I do not profess to know what would be, to a wheat-grower, the practical value in 1923 of even a cast-iron certainty that one of the next three years would answer this description. If the date were definitely given as 1924 it might be a simpler problem; but I do not know the solution. My concern is simply with the process by which the prophecy is made possible, with a strong presumption against its validity.

Many of us have from time to time analysed long series of meteorological data, in the fascinating pursuit of periodicity, and the first great difficulty encountered is the choice of time-unit. For such a purpose as crop forecasting, the unit ought apparently

to be a year, and yet the year is a singularly useless period to study in bulk. There is well-marked correlation between low pressure and high rainfall, but this does not show very much from year to year. Taking three-month periods is better, and for monthly periods the agreement is close. In sixty years of Greenwich figures seventy-eight months show mean barometer readings differing from normal by twice the mean residual. Of these, high barometer is associated with low rainfall and *vice-versâ*, except in two months. Of these two months, one July had a small deficiency of rain with low mean barometer, but there were twenty rainy days in the month. The other exception is a November with high mean barometer and high rainfall, but in that instance all the rain fell in the first ten days, after which the barometer rose and remained high with hardly a spot of rain. Thus even the month may be too long for time-unit. Sir W. Beveridge, however, is satisfied to take the year as his unit, so that a year of drowned harvests may be a dry one, and a year of dry summer may be a wet one. Even in the months the same objection may be found, as a single thunderstorm may make a really dry month come out with excess of rainfall.

Let us look further into the figures given. Accepting the barometer data, I have examined those from 1873 to 1904 (India, etc.), and 1873 to 1903 for North America, each being a homogeneous series. I computed the mean residuals, and found fifteen of the first set and twelve of the second, which differ from normal by more than the mean residual. In only seven years do both series stand out. In two of these the residual is of the same sign, both being high in 1888 and both low in 1893. In 1873, 1882 and 1892 the Southern barometer is low and the American high, the reverse being the case in 1885 and 1902. The greatest residuals in the respective series are 1877, high, in Southern area, and 1878, low, in the North American. Assuming that the very small residuals are of no consequence, it is an easy inference that the barometer figures show no evidence of any such period as fifteen and one-third years.

Presumably the total atmospheric pressure over the earth is practically constant, so that an excess in one hemisphere would be compensated in the other; so that the five cases noted are quite plausible. The areas considered are not large enough to supply perfect compensation; so we may assume that the Eurasian figures might have compensated the high residuals in 1888 and 1893. This particular compensation might be expected to prevent the occurrence, except at very long intervals, of such

a phenomenon as a world-wide failure of harvest from meteorological causes; having regard, for instance, to Lockyer's "Barometric See-saw" (see *Proceedings of Royal Society*, Vol. LXX., and elsewhere).

Curiously enough, the Argentine region, which on this showing would come to the rescue in case of a bad season in India, especially as it is an important source of wheat supply, seems to have been ignored by Sir W. Beveridge.

A practice that I have known to be followed in some periodicity investigations is to obtain an approximate period from one set of data, and to "correct" it by reference to other sets of data which by themselves would give rather different periods, but it must be borne in mind that a period of x years in one place and of $x+2$ years in another cannot be regarded as strong evidence of a period of $x+1$ years in both.

There remains one important consideration. Periodicity as an aid to forecasting depends for its justification on its definiteness and on its accuracy in prediction. It is not enough to derive series of sine-curves from long-continued observations, and make them fit more or less all the known data. An example of this can be found, very pertinent to the present question, in the sun-spot analysis of Professor Kimura. The sun-spot period is known to be irregular, and Professor Kimura analysed the sun-spot numbers from 1750 to 1911 and found a curve which fitted fairly well through that long period. He continued his curve by way of prediction to 1950, but the actual figures disagreed the first year and got worse and worse year by year. Another case, when greater accuracy could be expected, since, after all, very little is really known about sun-spots, is that of what is called the moon's error. The moon's motion is modified by the attraction of planets, the want of sphericity of the earth, and so on; but when allowance is made for all known causes the moon's observed place still goes on differing more and more from the computed place. Professor Brown, the greatest living authority on lunar theory, analysed the observed residuals for 150 years, and yet failed to predict them for the next few years. Considering how many causes, which are so apparently arbitrary as to be commonly called "accidental," affect the weather and the crops, it does not seem likely that the time has yet come for long-range forecasting to become a practical factor in the regulation of the world's food supply.

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NOTES ON THE SOCIAL AND ECONOMIC TRANSITION IN JAPAN

The economic development of modern Japan has followed closely the lines of evolution of European nations in their transition from the feudal to the industrial state. Yet we see day by day, as it were, the drama of nineteenth-century England being enacted over again—the passage from status to contract, the decline of domestic industry and the rise of the factory system, the growth of large towns and the migration from country to town, the decline of guild control of crafts, the rise of trade unionism and the refusal of government authority to admit the principle of collective bargaining, reform bill agitations, rice riots, and, with the application of science to industry and life, the growth of a shallow and callous rationalism. With these developments before one's eyes it is difficult to believe that Japan is only half a century removed from mediævalism. It is a curious phenomenon, and one which Japanese frequently explain by saying: "Japan has accomplished in fifty years what it took England three centuries to do." Though these facts make it appear that Japan has leapt from the feudal ages right into the nineteenth century, a consideration of the details of this transition shows how gradual it is and how the history of the past fifty years has followed closely the lines of economic and political evolution of Western nations in their transition from mediævalism to modern times.

In our own history the Elizabethan age marks the parting of the ways and the foundation of a new economy over the ruins of the old feudal order, and the facts and movements of this age form a convenient yet true angle from which to view the evolution of modern Japan. Indeed, the conditions, the economic policy and the national organisation of the Elizabethan age are so strikingly similar to those of the Meiji era (1867–1912) of Japan that a comparison throws in relief much that is vague in both ages, and at least is an aid to the understanding of the measure and significance of Japan's development.

The opening of both ages found each nation surrounded and

even menaced by nations whose feudal order had passed away generations earlier; in the case of Japan by the industrial states of Europe and America, states that had already developed a money economy, commerce, and industries; and, further, had amassed capital enabling them to maintain well-equipped armies of mercenaries quite outmatching the old levies of feudal retainers. The existence of these armies and navies and their evident efficiency had an important bearing on subsequent economic policy and thought, for they were to both the Elizabethans and modern Japan a first demonstration of the existence and importance of a third factor in the production of wealth, namely, capital. In his introduction to the commercial history of the Elizabethan age Dr. Cunningham dwells on this point so well illustrated in Japan's modern history: "In Western Europe, as early as the fifteenth century, the command of wealth in a readily exchangeable form was of supreme importance with a view to international conflicts. Landed proprietors with their retainers could not hold their own against professional soldiers; the prince who commanded large feudal levies was likely to be worsted by an enemy whose purse enabled him to put well-trained mercenaries in the field. A large territory manned with dependents was no longer such a source of strength."[1] To insist on the importance of money and the power of capital as a third factor in the production of wealth may appear superfluous to Western minds to-day; but it is an idea which slowly and with utmost difficulty took root in Europe, and has hardly yet dawned in the minds of Eastern nations. In Europe, the traditional feudal prejudices against trade and usury and the struggles of a sound banking system to free itself from the stigma of usury are sufficient evidence of the slowness of society to realise the importance of money, and the difficulty of the emergence of capital as a factor in the production of wealth.

[1] This point cannot be emphasised too much in the case of Japan, for an understanding of it would do much to eradicate the illusion that a sudden admiration for Western civilisation induced the nation to a self-conscious attempt to adopt it. When Western warships appeared off and bombarded the coasts of Japan before the wondering eyes of levies of feudal retainers the feudal military pride of the clans received such a rude shock that they quickly saw that the only way to beat these "red-haired barbarians" was with their own weapons. Only later did the idea dawn that these powerful war machines were based on money expenditure, and to get money commerce and industry are necessary, and these latter cannot be developed without skill and technical knowledge. And thus arose the necessity for planting Western technical education on Japanese soil, and with this educational system came some knowledge of European culture and ideals. Naturally they tackled these problems with that fixed feudal prejudice against peoples whose life, especially whose military organisation, is based on money and not service.

Such prejudices and difficulties Japan had to overcome fifty years ago; and it is to this awakening to the idea of money and the necessity of a money economy which Dr. Cunningham notes as the basis of Elizabethan policy that we must turn for explanation of Japan's circumstances.

The economic task, therefore, that presented itself to the Meiji (1867–1912) generation of Japan was the building up of a money economy, and the amassing of capital, primarily, to place her army and navy on a money basis rivalling in efficiency those mercenary forces that had menaced her feudal existence. Thus there was developed in Japan an economic policy, not only administered, but initiated, by a strong national Government whose careful attention to detail and watchfulness over the country's resources has its counterpart in England in that studied, vigilant economic policy associated with the name of Burleigh. The aims and motives of Burleigh provide an elucidation of Japan's economic policy.

Of the elements of Elizabethan government, it is the predominant position of the Council, not merely as legislator and administrator, but as the initiator of commercial policy and enterprise that is most instructive as elucidating the nature of Japan's government to-day. Though Japan has a Constitution ostensibly based on modern Western models, the Diet has little power and little important influence on the nation's affairs.[1] The predominant position of the Council, as of the "Government" of Japan, rested not so much on bureaucratic power, but rather on the fact that it was the symbol of national as opposed to feudal government, and the reverences for its many ordinances were those of a people who for the first time in their history were

[1] The extent of constitutionalism in Japan may be understood from the following facts:—

The electorate numbers 3,000,000 (population 60,000,000).

The Ministers of Army and Navy retain office through a change of "Government."

The "Government" may make disbursements out of revenue without the consent of the Diet, under the head of *sekinin shishitsu*, "responsibility disbursements."

At the recent general election (May) the Tokyo journal *Hochi* drew attention to the custom prevailing in some electoral districts of the police canvassing on behalf of the "Government" candidates. The journal was not so severe on the police for using their good offices in favour of the "Government" party, but complained bitterly that in some districts canvassers for the Opposition had been imprisoned.

A constitutional question arose at the same election when two prefectural governors were elected to the Diet. The "Government" decided they should be allowed to take their seats.

The *Tokyo Asahi* in a recent leader criticised "the War Office's Foreign Policy."

beginning to feel a nation, merging their clan spirit and their spirit of feudal allegiance into one great idea of nationalism. This type of government is frequently described as bureaucracy, but the term hardly explains the peculiar and less patent nature of the Elizabethan Council, or first National Government of Japan. The sanction of authority rests on something quite different—on the confidence felt in the protection of a strong Central Government by peoples having their first experience of nationhood.

The new National Government of modern Japan threw the full weight of its authority into the development of a carefully designed commercial policy. In his development of new industries, mineral resources, ordnance, in the importation of foreign capital and skill, his currency reforms and the close investigation of every new patent and project, Burleigh held a watching brief for the development of every possible national resource, which, for its close association of the Government with business and commercial policy, has its counterpart in modern Japan. The significance of this association cannot be emphasised too much. The Queen herself wrote pamphlets on currency depreciation in her own hand, and in both ages this peculiar association of the Government with business policy was due to the sudden comprehension of a new factor and power in the destiny of the nation—money.

With the advent of money and Western capitalism in Japan the country was given its first opportunity to place its feudal levies on a money basis with modern armaments, and in doing so it enjoyed an advantage which the Elizabethans did not, in the existence of a well-organised international armament traffic. British and European armament syndicates found here a new and promising market for their wares, and these, together with the aid of foreign military and naval instructors, played an important part in the rapid conversion of Japan's feudal levies into a modern army based on money supplies.[1] The supply of ordnance was one of the first problems Burleigh had to solve, and his difficulties in this connection were increased by the loss of Calais, which had always given England access to Continental mineral resources. As an island Power in juxtaposition to a continent of vast mineral resources Japan's position is

[1] "The most fashionable firms, Krupp, Creusot, Vickers, Armstrong, etc., sell very largely to foreign Governments. The directors form syndicates and enter into agreements for exploiting virgin markets."—(F. W. Hirst.) Their achievements in exploiting Eastern markets is very similar to that accomplished by gunpowder for the Revival of Learning in Europe.

analogous, and from the importance of Calais to the Elizabethans may be realised the importance to Japan of points on the China coast, such as Port Arthur and Tsingtao, and what lines her motives and policy toward this continent must take.

In developing the industries of the country Burleigh imported freely foreign skill, capital, and patents, and, like modern Japan, was not slow to see how these things could be utilised to the best advantage of the country. Japan's method in this respect is to watch new industrial developments in the West, and the inventions or processes being in a fairly advanced stage, to buy up patents, mechanics, and experts, and reproduce the model on Japanese soil. Thus six months after its production in the West the model may be reproduced in Japan. The patents and skill having been purchased, it is not difficult to find the capital, since the foreign owners of the patent may usually be counted on for considerable investment, thus securing the initial success of the reproduction on Japanese soil. A great problem that Burleigh had to face was the concentration of the foreign trade of the country into the hands of his own nationals, and ridding the country of the Hanse merchants. In the early years of Meiji (1867–1912) the whole of Japan's foreign trade was in the hands of foreign resident merchants. On the other hand, their position was never so strong as that of the Hanse. They have never enjoyed discriminating favours from the reigning monarch of Japan in the way of free imports; on the contrary, every possible discrimination has been exercised against them. The Hanse must have owed a good deal of their prestige and strength to the fact that in their commercial treaties and official dealings they negotiated direct with governmental authorities and not through consular and diplomatic bodies. The following figures of goods carried to and from Japan in foreign and Japanese bottoms gives some idea of the extent to which the foreign trade of the country is passing into native hands :—

	Total imports and exports.	Carried in Japanese ships.	Carried in foreign ships.
1905 ...	Y801,614,964	Y63,025,075	Y738,589,889
1918 ...	Y3,542,006,015	Y3,110,820,197	Y431,185,818

One Yen = 2*s.* 0·582*d.*

On the abolition of feudalism, and in her first attempts to establish a monetary and banking system, Japan's early financial difficulties were identical with those of the Elizabethans. In feudal times the nucleus of a banking system had always been present, not in goldsmiths as in Europe, but in a class of pawnbrokers and exchange dealers whose functions were dealing in

exchange of the currencies of the various *daimyates*, and making loans to *samurai* against their future rice allowances. Though each *daimyate* had its own subsidiary currency, there circulated throughout the whole country a gold coin, *koban*, exchanging with silver in the ratio 7 : 1. The appearance of the white man on Japanese soil synchronised with the disappearance of this low-priced gold, and the Japanese do not easily forget this early drain of their gold reserve. It handicapped them severely in their first commercial relations with monetised nations, and it is partly due to this and to prevent further gold drain from excess imports that an import tariff on some 650 articles has been maintained. This first experience with nations on a money economy gave the country its first valuable education in money, and how the Elizabethans profited by a similar experience is shown in the work of Sir Thomas Gresham, whom it induced to formulate wisdom on the matter that is still embodied in our text-books on currency. The late war helped Japan to retrieve her position, as the following figures show :—

	Excess exports of gold and silver bullion. Yen.	Excess imports of gold and silver bullion. Yen.
1911..................	18,230,018	—
1912..................	16,780,802	—
1913..................	26,071,995	—
1914..................	20,542,854	—
1915..................	20,269,506	—
1916..................	—	72,950,483
1917..................	—	238,488,627
1918..................	—	4,078,448
1919 (Jan.—Aug.)	—	78,897,090

Once the early currency difficulties were surmounted, the banking system of the country was entirely reorganised on Western models. The American national banks were taken as the first models and the regulations of these banks entirely adopted. In 1883, however, an Act took away the issuing privilege of the national banks, confining it solely to the newly-created Bank of Japan.

In grafting certain features of nineteenth-century Europe on to her post-feudal organisation, Japan enjoyed a certain "unearned increment" by coming late in time, and adopting the perfected mechanism, patents and processes she found ready at hand in the industrialised West. Her population, 30 million in 1867, is to-day 60 million, a contrast with the three or four million of Tudor England, and a fact which shows the necessity of the speedy

adoption of capitalism and Western industrial methods. How rapid her expansion has been may be seen from the following figures :—

NATIONAL REVENUE (IN YEN).

1875	1905	1913	1919	000,000's omitted
69	535	721	1064	

FOREIGN TRADE (Imports and Exports).

1885	1905	1913	1918	000,000's omitted
66	810	1361	3630	

In the cotton industry, one of Japan's most formidable enterprises, the following figures illustrate the comparative growth :—

AVERAGE ANNUAL CONSUMPTION OF RAW COTTON (1914–16).

Japan.	England.
830,000,000 lbs.	1,854,000,000 lbs.

These amounts of raw cotton were consumed by :—

Japan.	England.
2,747,778 spindles.	150,000,000 spindles.

These are the average number of spindles worked in each country for the years 1914–16 inclusive. Japanese spindles worked an average of twenty hours a day.

In all these developments the country has enjoyed a great advantage by developing late in time. For, in laying down plant and machinery for new industries and adopting new processes, it has been able to utilise the last-improved ideas and machinery of the West, particularly of the United States, and thus it had no traditions nor heavy investments of fixed capital to handicap it, as, for example, is the case with some industries in Europe and America where expensive plant and machinery was laid down years ago, and the industries are bound to remain in their conservative position because not sufficient is written off annually for improvements and the exploitation of new ideas. The country has not had to go through that long apprenticeship of patient trial, research and experiment by which the industry of the West was built up; it has had merely to pluck the ripened fruit.

The figures quoted above take no account of the numerous minor industries in the country engaged in the production of such exotic products as pianolas, pianos, violins, etc., nor of the innumerable minor enterprises in which directly or indirectly the Government interests itself with meticulous solicitude, such as fox-farming, horse-breeding, sheep-rearing, artificial breeding of salmon, model factories for the teaching of scientific management,

to the rearing of frogs for food. No idea appears too small for development, and for such care in utilising and developing every iota of technical knowledge there is hardly a precedent in our own Government's history, save perhaps in the national policy of the country under Burleigh. Added to this, the hedging around and protection of industry by means of tariffs, subsidies, navigation Acts, and various anti-foreign discriminations, there has developed to-day in Japan that system of national economy against which Adam Smith in his day directed his attack—mercantilism.

Much criticism has been directed against Japan's mercantilism, yet it is no more than the line of policy each nation of Europe has taken when the various municipal and feudal units were first merging and beginning to develop national consciousness, and the nation's historical evolution is a modern testimony to the truth of Schmoller's characterisation of the mercantile system : "The essence of the system lies, not in some doctrine of money or the balance of trade, not in tariff barriers, protective duties, or navigation laws, but in something far greater, viz., in the total transformation of society and its organisation, as well as of the State and its institutions, in the replacing of a local territorial economic policy by that of the national State." This transformation dates, in the case of Japan, from 1867, when Meiji Tenno was restored to the throne as Emperor, and four years later the feudal clans were dissolved, and land registers handed in to the new National Government.

Thus mercantilism did its work in welding a new national unity and developing the natural resources of the country after the various *daimyos* had surrendered their fiefs. It was, as Schmoller describes it, "in its kernel, state-making." Now that the state is made it would be difficult to deny that there have grown up some of those abuses of mercantilism which Adam Smith attacked in his day and which provide a modern illustration of the immortal wisdom of his teaching. An import tariff on some 650 articles yielded, in 1918, £3,500,000, compared with a yield in England from tobacco alone of £33,000,000 (1917–18). The constant menace of gold drain from excess imports is the reason put forth for this tariff wall. But one might well ask if there is really an excess of imports and whether it is not just the system of subsidy and subvention that is keeping low the value of exports while their volume is increasing, and whether the average excess of import values throughout the year is not approximately the amount paid away in subsidising exports.

This might well be the case with the Japanese, who try their hand at the production of every conceivable article of Western consumption, producing a wide variety of articles for export which they can only hope to sell in competition with foreign wares by the methods of subsidy and undercutting. Rather than increase the volume of their exports or their variety, could they make a given volume and range of exports yield a higher price, it might go far to driving away the bogey of gold drain. Such prices could only be obtained by the production of sounder and more efficient goods that could take their stand by foreign goods in open competition, but so long as industries are under the umbrage of subsidies there is no inducement for manufacturers to take this line of policy. These endowments offer too quick and certain returns. Japanese retailed silk goods, for example, are cheaper in London than in Tokyo. It might be expected that Japan's "invisible" exports in the way of shipping earnings might contribute toward the reduction of her excess imports, but here, again, amounts that might aid toward this reduction are largely cancelled by amounts that have been previously paid away in rebates, secret or otherwise, or subsidies.[1]

An analogy of modern Japan with Elizabethan England can do no more than indicate the lines of transition the country's economic life took on the downfall of feudalism, and takes no note of those deeper traits that differentiate an Eastern from a Western nation. But that there should be close analogy is not remarkable if one remembers that, when this hermit nation first opened its doors to foreign intercourse, there were found in existence on its soil all those feudal institutions thought to be peculiar to European feudalism.[2] In the existence of the family system in Japan and in Shinto, the form of national faith, we see two institutions which make a differentiating mark on the social and political institutions of the country. Shinto, postulating as it does the divinity of the Emperor, developed national patriotism to a point of religious fervour, and is something quite different from our Tudor nationalism.

[1] The first Subsidy Act, 1896, provided a subsidy of 25 sen (6*d.*) per ton gross for every 1,000 miles of service by steamers in foreign trade, provided they had a minimum tonnage of 1,000 gross and a speed of 10 knots. In 1910 the tonnage and speed qualifications were raised to 3,000 tons and 12 knots, and the subsidy to 50 sen (1*s.*).

[2] "Notes on Land Tenure and Local Institutions in Old Japan," by D. B. Simmons. *Transactions of the Asiatic Society of Japan*, Tokyo. Sir William Ashley writes of these notes, "One gets up from the reading of these notes with a quite uncanny feeling. . . . We were not prepared to find that in most essential points mediæval society in Japan was the exact counterpart of that of Europe It is as startling as if we had come on our doubles."—(*Surveys.*)

Thus it is not difficult to visualise the drama that is slowly working itself out, a drama in which the clash of motives is provided by the sudden impact of mediæval custom, mind and state with nineteenth-century industrialism and social philosophy. One watches, for example, the old patriarchal relations between employer and employed survive stubbornly under the capitalised factory system of to-day. So much so that some social thinkers in Japan see in the perpetuation of this "beautiful sentiment" between capital and labour—a sentiment they cannot find in the West—Japan's own peculiar solution to the labour question.[1] But slowly it is realised that sentiment, however beautiful, is frequently capricious, and that contract being dependable has much to be said for it, at least as a means of regulating economic affairs. One watches, too, what short work the ideas of contract and money make of ancient custom and usage, bringing about a degeneration of loyalty in service and change of occupations, frequently without that efficiency of labour which they have developed in the West. At no time was this more evident than in the years 1914–19, when money poured into the country. It produced unprecedented labour unrest, to some extent encouraged by the achievements of similar unrest in the West. Yet with the difference that in Japan it is not the deliberate unrest of a people accustomed to contract and collective bargaining. To realise its significance one must think of it as the unrest of a people for whom only a generation ago occupations were fixed and hereditary, mobility from place to place difficult, a people who are feeling the first glow of freedom which money payments and the voluntary contracting of their labour can give. The chief danger of such movements in Japan is that they take their

[1] Baron Goto, for example, when interrogated by an American as to how this beautiful patriarchal relation between employer and employed came to exist in Japan, replied, "The phenomenon you have noticed is due to the peculiar nature of the Japanese people. In the West the strongest factor in government is reason, logic, and ideas. But here the strongest thing is the heart, if I may call it that—that is to say, sentiment."

Baron Shibusawa, the greatest capitalist of Japan, in a book, "A Hundred Talks," writes: "The relation existing in the past between capitalists and labourers was a relation of feeling and affection. To provide a law and establish this relation on the basis of rights and duties would have the effect of creating distance between them. . . . The hope of social harmony, of a good relation between capitalists and labourers, is to be grounded on the realisation of 'good customs and beautiful sentiments.' . . . If labourers and capitalists alike followed the royal path' and looked upon it as a rule of human conduct industrial differences and law suits would be avoided. This bond is superior to a hundred statutes and a thousand laws. The true bond is that of sympathy, and the notion of rights and duties can have no other effect than to separate capitalists and labourers."

inspiration from similar movements in the West, while labour in Japan is far behind Western labour in efficiency. It was precisely to meet such a contingency that the Elizabethan Statute of Artificers and Wage Assessments was intended.

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REVIEWS

A Constitution for the Socialist Commonwealth of Great Britain. By SIDNEY AND BEATRICE WEBB. (London: Longmans, Green and Co. 1920. Pp. xviii + 364.)

AMONG literary Utopias the Socialist Constitution of *das Ehepaar Webb* stands out with something of the gaunt but imposing efficiency of a modern railway station in some fantastic Eastern city. Here is a book with which some will disagree, but of which none can say that it is the product of hasty thought, or of inexperience of affairs, or of an inadequate sense of historical development. By patient study of what has been and what is the unwearied authors have fully earned the right to indulge in visions of what shall be: and their picture of the commonwealth of the future, though not, we hope, the last in time, must be regarded as in some sense the crown and consummation of all their labours.

It would be idle to pretend that this is an easy book to read. To thread one's way through its avenues of machinery has the same kind of numbing effect on the intelligence as a tramp round a factory. You see that travelling crane, clanking along overhead? That is a Control Committee going its rounds, armed with its weapons of Measurement and Publicity. You are intrigued by that circular saw, revolving at incredible speed? That is a Vocational Association improving its technique. You are deafened by the whir of that piece of cross-belting? It is only the Joint Financial Committee of the Social and Political Parliaments, allocating Grants-in-aid. One drinks it all in eagerly, only to find later with shame that the mind has failed to grip, and that what felt like intelligent conviction was only an awed but unreceptive acquiescence.

Yet all such weakness has been foreseen by the authors, and chidden with a gentle reproof whose justice can hardly be gainsaid. "Those impatient democrats . . . who petulantly demand, at the same time, the elaborations and refinements of civilisation and the anarchy and simplicity of the primitive age, cannot in the nature of things ever be gratified. . . . The price of liberty . . . is the complication of a highly differentiated and

systematically co-ordinated social order." Nor can we dispute that it ill becomes the stalwarts of Capitalism, with its portentous specialisations and its labyrinthine interweaving of interests, to preach the gospel of simplicity.

It would not be fitting to offer to conduct the readers of this JOURNAL all over the vast integrated establishment of Webb and Webb; for its products are as various as the activities of man, ranging from international treaties to sewage, from household requisites to a Central Index Register. It is not for the mere economist to pass judgment on its improved sun-and-planet engine —a court purged of snobbishness revolving around a Ceremonial Monarch—or on that delicate piece of new mechanism, the Standing Committee on Common Amenity and Public Beauty. Even the more purely economic departments must be hurriedly traversed. We must confine ourselves, in short, to asking what answer the authors give to a few of the main questions which are bound to be put to all reconstructors of the framework of society.

First, then, what is the attitude of Mr. and Mrs. Webb towards the now fashionable Sally Beauchamp doctrine of representation—the doctrine that each individual elector is a bundle of separate wills, which must find separate representation if democracy is to be made a living thing? To some extent they endorse it. The ordinary man, it appears, is a crowd of at least four persons—Producer, Consumer, First Citizen (requiring Defence and Justice), and Second Citizen (with views on Social Policy). In these days of psycho-analysis our authors may well be astonished at their own moderation. They are moderate, too, in the practical inferences which they draw from their analysis. They are content with two Parliaments—one social and one political; while granting a large share to Associations of Producers in the management of their several industries, they see no use for a separate National Assembly of Vocational Representatives; and for purposes of local government they permit us to fuse the Two Citizens again with one another and with the Consumer. They thus avoid on the whole successfully the pitfalls which beset the extreme Sally Beauchamp theorists—the danger of removing from the elector all responsibility for co-ordinating his own conflicting desires and opinions, of relieving the strain of decision for the individual only to accentuate it for the community, rather as Einstein is accused (is he not?) of banishing gravitation from a local field only to pile it up with ever-increasing intensity at the end of the universe. Our authors' plans for the

ultimate co-ordination of national purposes, if not fanatic-proof, are at least carefully and indeed meticulously laid.

Next, how far in the new commonwealth is the individual to be free to spend both his life and his income as he chooses? Or on what alternative to individual choice and decision are we to rely for the due allocation of the national resources, both of men and capital, between different employments? Here the authors are on the whole conservative. First, they preserve the machinery of price; there may, they think, be an extension of Communism in certain directions, but in the main, unless the community decides otherwise of set purpose, each industry must be allowed to charge such prices as both to cover its own costs and make a fair contribution towards communal expenses. Secondly, the doctrine of economic rent is conscientiously brandished—no particular group either of producers or of consumers is to be allowed to exploit differential advantages in production; though now and again the authors' grasp on this principle seems to slacken, as when we find that during the transition the compensation of expropriated owners is to be effected out of general taxation and to be in no way a charge on the particular industry transferred to public ownership—an arrangement surely unduly favourable (*e.g.*) to railway transport as compared with coal-mining. Thirdly, the mobility of labour between different employments and establishments is to be promoted by variations in the "net advantages" or even in the wages offered—a sensible enough provision, but perhaps scarcely a great advance, from the standpoint of abstract justice, on the practice of Capitalism. Fourthly, there is to be a great variety in the types of industrial organisation, and competition between them is not to be excluded. Only a few leading industries will be subjected to old-fashioned nationalisation; the main field will be covered by Local Authorities of varying sizes—composed, that is, of varying numbers of the Wards which are to be the cells of local government—and by Co-operative Associations of Consumers. There is to be room for properly safeguarded experiments by self-governing establishments—even for independent craftsmen, agriculturists and professional men, selling their products and services direct to the market. There will even, for a long time to come, be vestiges of private capitalism. Here, again, common sense prevails, though the authors do not seem to us as explicit as they evidently imagine themselves to be on what is and what is not to be branded as private ownership of the means of production. Fifthly, Mr. and Mrs. Webb repose a faith as profound as that of

Frederick Taylor in the white light of science—of "incessant statistics" and "streams of reports"—as the supreme guide to policy, and the supreme test of whether or not economic welfare is being maximised.

Finally, what provision is to be made for industrial progress and the needs of future generations? Up to a point the answer is clear. Each industry will be expected to budget for its own annual extensions; the authors emphasise justly that capital improvement does not necessarily, even now, involve borrowing at interest, and face frankly the compulsory abstinence—the loading of prices above cost of production, which the suggested procedure will necessitate. As to the exploration of new wants and the development of new services, it would not seem that we can rely much on those independent practitioners, since they are not to be allowed to own more elaborate instruments than they can operate unaided. But it "may well be the case" that the public authority will make advances from public funds to new and expanding industries. For this purpose it will have at its disposal, among other things, the bank balances of individuals and the funds of insurance societies, which it will borrow and on which it will even perhaps pay interest. The authors appear to place implicit confidence in the capacity of the public authority for appraising new ideas and for judging and bearing risks; and they dismiss the problem of population in a footnote.

We have been able to notice only some of the features of this closely-packed work, and those not in every case the features in which the authors themselves display most interest. So absorbed are they in the apparatus of government that they deal almost by way of afterthought, and in a concluding chapter nominally devoted to the period of transition, with some of the fundamental problems of socialisation. That chapter contains also an admirable plea for restraint and decent manners during the inevitable strain of transition. There is nothing better in the book than the authors' persuasive suggestion that the vast disparity in income between the leaders of business and the leaders of science or public administration is largely a matter of custom and convention which a decent professional pride on the part of the business world would not wish to see perpetuated.

Thus this notable book ends, on a note of triumphant hope tempered by studious moderation. It is easy and perhaps pardonable to indulge in a smile at its mechanistic and sesquipedalian terminology. It would be easy, too, to deprecate occasional extravagances of phrasing, as when allusion is made to "the

'invincible ignorance' of the upholders of the Capitalist System," or when an honest and effective enforcement of the policy of the "National Minimum" is said to have been thwarted by "the intellectual *sabotage* of the administrators." But our dominant feeling must surely be one of respect and gratitude towards this pair of business-like Crusaders, who have laboured so long and on the whole so fruitfully both to bring us within striking distance of Jerusalem, and to hand the city over to us undesecrated by violence and civil strife.

D. H. ROBERTSON

Der Bolschewismus, Voraussetzungen, Geschichte, Theorie, zugleich eine Untersuchung seines Verhältnisses zum Marxismus. WILHELM MAUTNER, Doctor der Staatswissenschaften [Tübingen]. (Berlin, etc.: Kohlhammer. 1920.) Pp. xxiii + 368.

IT might seem too soon to write a book on Bolshevism. But the present book is not so much a general discussion of the thing itself as of the question whether Marx would have approved of it. Are the principles of Lenin and Trotsky those of Marx and Engels? The question is of subordinate interest to most Englishmen; but on the Continent there is already a tradition of the Fathers. Dr. Mautner thinks the Bolshevist leaders wrong in claiming the authority of Marx. It is curious to find them appealing to any authority at all.

For his proof, the author relies, not only on the famous *Communistic Manifesto* (1847–48) and *Capital* (1867–85–94), but on documents recently printed, like the *Correspondence of Marx and Engels*, 1844–83, published 1913, and Engels' *Principles of Communism*, published 1914 (Mautner, 366–7).[1] The new evidence strengthens a case already sufficiently clear.

The Manifesto was "Communistic," not, as we might have expected, "Socialistic," because the latter term was associated with the Utopias of Proudhon and the *bourgeoisie*, to say nothing of Lassalle's *Social Democracy* (124–5, *cf.* 194–5). The party was not committed to an equal division of goods. Nor does the proletariat, to whom the Manifesto is addressed, consist of the most abject unskilled labourers; it is enough if they are wage-earners without capital. Such qualifications may be fairly held to leave the main doctrine untouched. The differences between the early and the late teachings of Marx seem rightly regarded by our author as no more than are usual between youth and age.

[1] See ECONOMIC JOURNAL 1895, p. 492.

The essential belief remains that society is to be saved by the proletariat (218). So far Marx and Lenin are at one. How much farther does the agreement extend?

To answer the question, Dr. Mautner takes Lenin and Trotsky as the leaders of Bolshevism, and, besides drawing freely on their other works joint or separate, submits to a long drastic review Lenin's book of 1917, the full title of which he gives as: *State and Revolution: The Marxian Doctrine of the State, and Problems of the Proletariat and the Revolution* (127 *seq.*).

The first bone of contention is the State. Lenin makes much of the words of Engels (Preface to 1890 edition of the *Manifesto*): "Nowadays we may call ourselves Social Democrats, unsuitable as the term is for a party whose economic programme is not only Socialistic, but Communistic, and whose political chief end is victory over the whole State and therefore over Democracy itself" (Mautner, 124–5). There is to be no more State. This, says Lenin, means that when the proletariat have killed the present State, the State as such is, *ipso facto*, put to death, the proletarian successor being only a "half-State" and vanishing of itself when its work is done (131, 161, 202). Lenin improves on his text by adding that all previous revolutions have only perfected the machine of State; we must now break it up and destroy it utterly (132–3, 173). We shall have the skilled officials of the bureaucracy to work for the people, as once for the State. We must have representative bodies. But we must have no political democracy and no Parliament (135, 138). We must have a Government by the working classes whether they are the majority or not, and all under arms (136–142, 179, 250). The power must be central, not federative (136, 138, 198). There must not only be, as Marx said, a dictatorship of the proletariat, but a dictatorship of its leaders, even, if need be, of a single leader, for the public good (139, 237).

Marx and Engels, on Dr. Mautner's own showing, had certainly dropped seeds from which this grain might grow (see, *e.g.*, 145, 147). But they are far from Lenin and Trotsky. The diatribes of the two Germans against the State were against the State as they thought it had always been, namely, an instrument for the suppression of one class by another (149). The State of the proletariat is not this kind of State except at first, to put down the oppressor (153). It remains endowed with the other functions by which the present State serves the community, and of which even Lenin avails himself. Whether this form of State, too, will "die off" of itself remains to be seen.

It shows no signs of it in Russia, where the governing power remains, and remains centralised. Lenin may profess to cherish the old eighteenth-century idea of a "simple form of society without government." The coming of peace will test his willingness to realise it. At present he rules by force. He ridiculed the Anarchists for disclaiming all authority when they were meaning all the time to carry out a revolution by force, "surely the most emphatic kind of authority in the world" (136).

The characteristic features of Bolshevism, as laid down in Lenin's book, include government by terror, which Marx had condemned in express terms (155). They include violence and force as a means of propaganda, and this is disclaimed by Engels in a strong passage of the *Principles of Communism* quoted by our author (157). The mature view of Marx and Engels contemplated a gradual victory of a growing majority, never of a minority (197, 198, *cf.* 175). It involved that the revolution must come in every country when the industrial conditions made it unavoidable, and this meant when "Capitalism" had reached its full development. They ridiculed the idea that it could be hastened by a sudden blow, and they favoured the use of the franchise and Parliamentary action in countries living under a free Government (184, 186).

It may be remembered that in the 'seventies the Russian followers of Marx found the rule of full development an embarrassment. The friends of the peasantry in dispute with the "Capitalists" had the supposed rule thrown in their faces, and were told they were, by their leader's own principles, murmuring against necessity; accordingly, they asked Marx himself whether Russia fell under the rule or no. The abolition of serfdom had led to something like a rural proletariat, which might be enough to qualify Russia for the Revolution. Marx replied that his generalisation was only for the Western nations.[1] The incident is not discussed by Dr. Mautner. His own answer would probably have been the statistics given in his book (38 *seq.; cf.* 208, 224, 229); the expansion of Russia's factory and metal industry, with large capital and on an increasingly great scale, was unexampled, under the shelter of a stiff tariff. The numbers employed in 1912 reached nearly 3,000,000, as against 300,000 in 1850. The figure given for 1917 is nearly 2,250,000, in spite of the war. European Russia had already passed the initial stage of an industrial system similar to that of England and Germany. The figure is not great out of a population of 119,000,000, and

[1] See ECONOMIC JOURNAL, June, 1897, p. 316, and the articleof Prof. Loria there mentioned. Loria calls the answer downright senility.

the peasants are still an overwhelming majority, only held to Bolshevism by concessions, having no desire to "pool" their land, now that they have got it. Dr. Mautner touches this point perhaps too slightly (35, 36). But he has much ground to cover, and he has covered it well. He has richly provided us with references to recent writings. The activity of the German printing press in the matter of books and pamphlets is surprising. Dr. Mautner had to wait his turn (Preface, xi), and his book appeared a year after completion. Publishers have been even issuing translations of Spence, Godwin, Hall, Ogilvie, Gray, Bray, Hodgskin, to all of whom Marx was more or less indebted.

There is a clear and rapid sketch of the successive revolutionary movements in Russia from the beginning of last century, as well as of the Trade Unions and strikes (46 *seq.*, 71 *seq.*). The author has Lenin's authority for explaining the name Bolshevist (Maximalist) as simply used for the "majority" in the voting of a particular Congress held in Brussels and London in 1903. Lenin himself thinks the word ridiculous; but with its suggestion of greater and less it has been felt to express the extreme position not ineptly; the minority on that occasion were apparently Social Democrats, who were content to take a little at a time, against opponents who would have all or nothing, and usually had the latter (121, *cf.* 69, 93).

In the book there are some bursts of feeling that might have been spared. But there is not enough of this aberration to disturb the dignity of discussion; and the final words, written on the day of the Peace, June 28th, 1919, are in good taste, and may find sympathy even in the countries which (as the author thinks) have dealt somewhat hardly with his own country.

J. BONAR

Die Wirtschaftspolitischen Probleme der Proletarischen Diktatur. Von DR. EUGEN VARGA, University Professor, late People's Commissary and President of the Supreme Economic Council of the Hungarian Soviet Republic. (Wien: "Neue Erde.")

MOST of the books published about the Bolshevist problem deal with this interesting question from a political point of view. Its economic aspects are usually settled by a few commonplaces. Therefore, the value of the recently published book of Dr. Eugen Varga cannot be over-estimated. No one is better qualified than he to deal with the economic problems of Bolshevism. As financial editor of the Hungarian Social Democratic newspaper *Népszava* for many years, he trained himself up to be one of the

most competent Marxists of the day. To his theoretical knowledge he added practical experience during the four months' period of Hungarian Soviet *régime*, in his capacity as President of the Supreme Economic Council of the Soviet Republic. He was indeed one of the very few sympathetic leaders of the Hungarian Bolshevist movement, because of his energetic fight against corruption, and of the sincerity with which he always revealed the weak points of the Soviet system.

His book rises pre-eminently above the average level of Bolshevist literature, on account of its almost impartial sincerity as to the causes of the economic failure of Hungarian Bolshevism.

The starting point of the investigations of Dr. Varga is the present unfavourable economic situation of Capitalist Europe. He points out that the proletariat of all belligerent countries came out of the war with a strengthened social self-consciousness, and demands, more energetically than ever, the improvement of its material and moral standard. This is a demand which, in his opinion, Capitalism cannot possibly satisfy. It can allow higher and higher money wages, but not higher real wages, for this could only be obtained by a considerable increase of production. If Capital were to renounce its profit, in order to be able to satisfy the demands of workmen for higher money wages, then there could not be any accumulation. Without accumulation there is no hope for the increase of production. Without the increase of production, the increase of the standard of life of the workmen is impossible. If, on the other hand, Capital refuses the demands of workmen, it will find itself face to face with the violent resistance of the proletariat. These are the outlines of the present crisis of Capitalism.

This chain of inference is by no means unassailable. However, let us suppose it to be right and let us await the author's proposal of a system which shall be free from the above-mentioned drawbacks of the capitalist system. For, of course, the system which we propose must not possess the same drawbacks as the system we oppose! Therefore the reader may rightly expect from Dr. Varga, after his introduction, the explanation of a system which renders possible the increase of production and the improvement of the living standard of the working class.

But the reader will deceive himself in this expectation. The author recognises with a praiseworthy sincerity that production as well as the workmen's living standard will considerably decrease in the first period of the proletarian dictatorship. He gives us no estimates as to how long he supposes this "first period" to last.

At any rate it may last a good number of years, perhaps decades. Will the crisis of Capitalism last longer than this period? We have no reason to suppose it will. Will the sufferings of humanity be less grave in the system supported by the author than in the present system? The author himself gives to this question a negative answer.

It remains for us to suppose that the workmen are, perhaps, more inclined to suffer shortage in a Bolshevist State than in a Capitalist State. Dr. Varga encourages us to suppose so at the beginning of his work by stating: "The dissatisfied proletariat shows no inclination to renounce its attack against Capitalism and its demand for an immediate improvement of its situation, in exchange for a rather uncertain hope that later on it will receive—within the limits of 'Capitalist slavery'—a somewhat better lot." However, a most embittered outbreak of the late People's Commissary against the Hungarian industrial proletariat, because of their disinclination to suffer shortage in the "first period of dictatorship," renders impossible this supposition also. Thus, the fundamental thought of the work of Dr. Varga obviously cannot bear criticism from a logical standpoint, since it infers from two negative premises an affirmative conclusion.

In spite of this, it is an interesting work, for it gives an account of the details of the putting into practice of the Bolshevist economic theory.

The greater part of the book deals with the embittered fight that takes place between the Soviet Governments and the agricultural population. There has always existed a certain natural controversy between village and town; but it was never so sharp as under Bolshevist rule. The industrial production of the town is paralysed by the decrease of working discipline and of the intensity of labour, caused by Bolshevism. Dr. Varga rightly remarks that in a Soviet State the output of Socialised undertakings tends to decrease to the level of the worst-managed business. Thus the town is unable to give a real equivalent to the villages for their agricultural products. On the other hand, the village is not inclined to credit the town by accepting its paper money as a temporary equivalent. This is the main source of all difficulties of the alimentation of towns in a Soviet Republic. Dr. Varga recognises that in countries the home production of which cannot satisfy their needs in foodstuffs, the alimentation problem of the Soviet Government would be still more difficult.

A most interesting chapter is that which deals with the public finances of the Soviet Government. Dr. Varga recognises that

the unproductive expenses of a Soviet State are at the beginning of the proletarian dictatorship much higher than those of the Capitalist State. An important and interesting confession of the author is that the workmen cannot get the whole equivalent of their work in a Communist State; a considerable part of it must be yielded up in favour of those who do not take a direct part in production and of those who are unable to do any work. Thus, the Social products cannot be sold at net cost; they must allow a margin for the maintenance of the above classes, and, besides that, a margin for the purpose of accumulation "which is in a Proletarian State still more urgently needed than in a Capitalist one." This sincere assertion sounds rather surprising from a Bolshevist leader, and is a sufficient refutation of the demagogic arguments of less sincere Bolshevist leaders, who allege the entire cessation of exploitation of workmen in a Communist State.

PAUL EINZIG

The Revival of Marxism. By J. SHIELD NICHOLSON, Sc.D., LL.D., Professor of Political Economy in the University of Edinburgh. (London: Murray. 1920. Pp. 145.)

Karl Marx. By ACHILLE LORIA. Authorised translation from the Italian with a foreword by EDEN and CEDAR PAUL. (London: Allen and Unwin. 1920. Pp. 92.)

WE have much sympathy with those who hold that the theories of Marx are beneath the notice of a scientific writer. However, the refutation of prevailing fallacies has always been recognised as part of the economist's province. It is indeed a peculiarity of our science that its investigations generally start from a point which is, so to speak, behind the zero of ignorance. It is necessary to escape from error before reaching positive truth: "*Sapientia prima stultitiâ caruisse.*" Accordingly, gratitude is due to Professor Nicholson for having performed the heavy task of re-examining *Das Kapital* and other writings of Marx. The judgment which many of us have been content to base on samples of this literature is now confirmed by a more thorough examination. Professor Nicholson entered on the task prepared to find, as in the writings of Robert Owen and many other Socialists, some ideas that might be of service under present conditions. "But the more I read of Marx," reports the critic, "the more hopeless and depressing was the effect." "The theory of value as expounded by Marx, instead of being an advance, is a retrogression." He neglected the influence of Demand which contemporary economists were bringing into light. Another novelty

which the same writers favoured, the use of mathematical conceptions in economics, might seem at first sight to have been adopted by Marx. But we agree with Professor Nicholson in thinking that the mathematical apparatus in *Das Kapital* "is on a par with the maps and charts and ciphers put into the novels about the treasures hidden by pirates. The algebra of Marx compared with the algebra of Cournot . . . is as the charts of the pirate romance compared with the charts of the Admiralty." Professor Nicholson's searching criticism of Marx's theories on wages, profits and the accumulation of capital fully justifies his verdict that "what was original in Marx was wrong." No less searching and severe criticism is bestowed on the writings of Marx's most important disciple, Lenin. The divergence between Lenin and other disciples in their interpretations of the master's teaching is strikingly exhibited. It should seem that even the humble merit of consistency was wanting to Marx.

Any shred of authority that Professor Nicholson may have left to the author of *Das Kapital* disappears in Professor Loria's treatment of the subject. With respect to two leading tenets of the Marxian system, Professor Loria thus expresses himself: "Marx's thesis of the progressive concentration of wealth into the hands of an ever-diminishing number of owners . . . has not been confirmed. It has indeed been confuted by the most authoritative statistics collected since the publication of the book." As for the theory of surplus value stated in the first volume of *Das Kapital*, it is "peremptorily refuted or is reduced to absurdity." It was announced by Engels, and it was confidently anticipated by faithful Marxists, that the explanation of the enigma, left unsolved in the first volume, would be found in the long-expected third volume. But of the explanation there offered Professor Loria observes: "It soon becomes apparent that this so-called solution is little more than a play upon words, or, better expressed, little more than a solemn mystification. . . . Thus, far from effecting the salvation of the then threatened doctrine, this alleged solution administers a deathblow and implies the categorical negation of what it professes to support. For what meaning can there possibly be in this reduction of value to labour, the doctrine dogmatically affirmed in the first volume, to one who already knows that the author is himself calmly prepared to jettison it? . . . His fundamental economic theory is essentially vitiated and sophistical." If we knew nothing about Marx but what we are here told, we should infer that he failed in two prime tests of scientific worth, prediction of the unknown and explanation of

the known. The serenity of the scientific character was not among his qualities. Thus, of "the savage booklet entitled *Herr Vogt*," we read : "The style of this polemic writing is intolerably vulgar." A character "naturally acerb" became, under the pressure of adversity, "far from amiable." "Mingled sentiments of grief and anger fill our minds when in Marx's private letters to Engels we trace the manifestation of this harshness, which left him unmoved by the misfortunes of his dearest friends, which led him to make any use he could of those friends and then to overwhelm them with reproaches and accusations, which showed itself (and this is the worst of all) in a jealous hatred of comrades less unfortunate than himself." Particularly deplorable was his ungrateful conduct towards Lassalle, who had shown him great kindness, assisting him financially and in other ways. This adverse testimony obtains additional weight when it is observed that the witness is an enthusiastic admirer of the man whose defects he candidly admits. The countervailing merits attributed to Marx are extolled in encomiums of almost lyrical profusion, the beauty of which has been preserved by the translators as well as the English language permits. *Das Kapital* is described as "the marvellous work which, whatever judgment we may feel it necessary to pass upon the value of the doctrines it enunciates, will remain for all time one of the loftiest summits ever climbed by human thought, one of the imperishable monuments of the creative powers of the human mind. . . . The most austere criticism must bow reverently before such gigantic mental attainments as have few counterparts in the history of scientific thought." Space fails us to transcribe all the eloquent eulogies of the "sage" and "martyr" "who struggled and suffered and died for the Supreme Redemption."

It is a psychological question, of some practical importance, how the same mind could hold at the same time with respect to the same person judgments so different as those which we have cited. The contradictory utterances recall the character of *Dipsychus* as described by the poet Clough. The history of religious rationalism presents few such examples of fervid faith combined with critical reason. The nearest parallels are perhaps to be found among the worshippers at the shrine of Marx. Thus Professor Sombart, along with profuse eulogy of Marx, makes the admission that he contributed nothing to the technique of the science (*cf.* ECONOMIC JOURNAL, XIX., p. 239). The importance of Marx's theories is, indeed, as Professor Nicholson shows, wholly *emotional.*

F. Y. EDGEWORTH

The Limits of Socialism. By O. FRED. BOUCKE. (New York: The Macmillan Co. 1920. Pp. 259.)

Guild Socialism. By G. C. FIELD, M.A., B.Sc. (London: Wells Gardner, Darton and Co., Ltd. Pp. xiv+158. 5*s.*)

PROFESSOR BOUCKE sets out to examine Socialism as a practical scheme, and to determine how far its claims to supersede our existing order are justified. The path to progress is admittedly through plenty: can Socialism increase the goods which it proposes to distribute with so generous a hand? Obviously it cannot produce natural resources; it must therefore show its worth by improved methods of using them.

Professor Boucke has drawn up an interesting table, the conclusion from which—if we admit all his assumptions—is that by abolishing the leisured class, and absorbing into industrial work all married women under sixty, we may get a 14 per cent. to 15 per cent. increase in material goods. This is the possible maximum. We could obtain a further gain by eliminating luxuries, the production of which at present occupies nearly two-fifths of the workers of the United States. On every point at issue Professor Boucke gives Socialism the benefit of the doubt, which is permissible, since he is only concerned to show the utmost that it could be expected, under the most favourable conditions, to achieve. He concludes that the new order will certainly diminish pain and anxiety, but will probably not add greatly to happiness, since most of our troubles come from within. He sees no ground for believing that either popular rule or female suffrage will put an end to wars, but insists that Socialism cannot logically stop at national boundaries.

Two fundamental questions for which an answer must be found, receive very little attention from Professor Boucke. He makes no attempt to meet the objection that Socialism offers no inducement to men of brains and enterprise, except by the retort that the majority of workers lack that supposedly necessary incentive anyhow, and that many hundreds of thousands have for years worked for salaries and done their best. He is optimistic enough to add that too much stress is laid on mere monetary gain, and that habit, energy, and pride in achievement count more in the aggregate than the lust for profits. He admits the necessity of differences in remuneration according to skill and capacity, but states that: "Distribution according to need will, if necessary, take the place of distribution according to number of hours at work." Along this thorny path he does not, however, adventure further, except to admit that just where personal welfare and

social efficiency conflict it will not always be easy to determine. The main questions, therefore, remain unanswered.

Mr. Field's critical examination of "Guild Socialism" is thoroughly practical and concrete, and one can only regret that he has limited himself to so short a treatise. Guild Socialists are apt to live in the clouds; their language is not measured, and their ideas are sometimes confused. They drug themselves with phrases such as "wage-slavery," "labour as a commodity," "production for use, not profit." To these failings Mr. Field shows scant mercy, and the phrases which form so large a part of the Guild Socialist's stock-in-trade, are analysed with ruthless logic and deprived of much of their sting. According to Mr. Field, the main weaknesses of the Guild system are: (1) That it ignores altogether the services of the capitalist employer to production; (2) that it provides the worker with no adequate incentive to effort; and (3) that it risks the establishment of a tyranny of the producer over the consumer, more hopeless than any we have yet experienced. The question whether the employer earns his profit is a very big one, which ought to be argued dispassionately and with knowledge of industry: the Guild Socialist settles it all beforehand. His assumption that all workers will naturally do their best under the Guild system is equally arbitrary, and the question whether the Guilds may not be tempted to use their power to exploit the consumer drives him almost to frenzy. His reply to the charge is generally more lofty in tone than convincing in substance. For instance: "The abolition of the wage system involves a spiritual revolution, and the Guilds cannot fail to be worked in the spirit they desire." On this kind of rhetoric Mr. Field's arguments fall like a douche of cold water. He makes a good case for the view that the Guilds are not likely to encourage initiative, originality, and enterprise. All new inventions and suggestions would have to pass through the bottle-neck of the Central Guild organisation, which would certainly refuse most of them. The large and economically powerful Guilds would almost certainly succumb to the temptation to exploit the consumer, since "human beings have an almost infinite capacity for persuading themselves that what their own interest demands is really dictated by common justice, or is even in the 'highest' interest of the other party."

The writer devotes considerable space to the criticism of Mr. G. D. H. Cole's theory of the State, and argues that we must have some one sovereign form of association to co-ordinate the activities of Mr. Cole's various independent associations. For, in

the first place, these are not watertight, but are liable to overlap, clash and conflict; and, which is more important, if there is not one organisation admitted as supreme, some one or other, originally constructed for a different purpose, will arrogate to itself the right, and usurp the position.

Perhaps the least convincing portion of the book is Mr. Field's discussion on Industrial Democracy. The comparison which he draws between political and industrial democracy is both interesting and sound, but when he argues that the latter would not broaden the worker's outlook or widen his sympathies beyond the limit of trade or profession; that it would, on the contrary, cramp and narrow his mental outlook and limit his sympathies, we cannot agree with him. His treatment of the whole question of self-government in industry is somewhat lacking in sympathy, and makes it probable that any Guild Socialists who could bring themselves to read this lucid and closely-reasoned criticism of their system, would immediately reject it as having missed the soul and spirit of their philosophy.

H. REYNARD

The Principles of Sociology. By EDWARD ALSWORTH ROSS, Ph.D., LL.D. (New York: The Century Co. 1920. Pp. xviii + 708.)

THE object of this book is not only to attain knowledge, but to guide conduct; not only to discover the laws that govern social relations, but to show where improvements can be effected. The work is very comprehensive, and leaves practically no corner of the field unexplored, the writer combining description of historical fact with psychological analysis of human instinct and motives. He examines first social forces, then the processes in which these manifest themselves, and the resultant products. Lastly he deduces sociological principles for the guidance of policy. This method necessarily involves some repetition, since the sins and the virtues, the motives and conduct which were investigated in the discussion of social processes, reappear in the consideration of products, and can hardly be left out when the writer comes to principles. The interest of the questions raised, however, and the lucidity and acuteness with which they are discussed, carry the reader along through the enormous mass of detail.

After making allowance for differences due to climate, geographical environment, and race *psyche*, Professor Ross comes back to elementary human instincts as fundamental sociological

facts. He lays most stress on the instinct of domination—the domination of men over women, of fighters over workers, of rich over poor, and the instinct of exploitation, which is the leading purpose of domination. The motives at work are subjected to searching analysis, and the theories so often invoked in their defence are ruthlessly exposed. The chapter on the rise of gross inequalities is less convincing. "The dominant class," says Professor Ross, "always propagates the idea that social distinctions have originated in differences of personal capacity and virtue." This, like the rest of his indictments of privilege, can hardly be disputed. But when he maintains that "the ups and downs of fortune which happen all about us in consequence of individual differences in ability, enterprise, character, or diligence, shed little light on the origin of fixed classes," it is not so easy to agree with him. His own description of the founders of a leisured class could be interpreted as evidence in favour of the very point at issue. The early warriors who first protected, then exploited, the tillers of the soil; the serf who was the first to run away and eventually became lord over his old companions; the adventurous Australian sheepman who got ahead of Government surveys; the land-grabber in every corner of the globe—these, according to Professor Ross, laid the foundations of a leisured class, and they possessed precisely those qualities of superior ability, enterprise, and character, though it might be but the enterprise to exploit and rob, and the ability to get in first.

The writer can offer no panacea for the class struggle. Various factors have served in the past to mitigate the conflict. A huge exploited class may be kept inert by the opportunities for climbing out of it which deprive it of its natural leaders. The breadth of economic opportunity retarded the appearance of the Labour movement in the United States. But when "free land" came to an end, and the working man's opportunity of becoming a capitalist disappeared, the class struggle emerged. The modern social problem, Professor Ross considers, has been created neither by labour agitators nor by capitalist greed; it arose inevitably out of the development of machine industry, and there is no sign at present of any real solution of these problems.

The sociological principles which the writer finally commends to the attention of social students and reformers are the principles of anticipation, of individualisation, and of balance. In every detail of life we anticipate—policy must be shaped, therefore, to produce results by anticipating these anticipations. Thus

the law of Workmen's Compensation is beneficial, not so much because it indemnifies the employee who is actually injured, as because it induces employers to adopt safety devices. Economists have learnt that where wealth is not safe from depredation, presently no wealth will be produced. It is a commonplace that indiscriminate charity calls into existence more poverty than it relieves.

The principle of individualisation is a necessary corrective to the tendency for dealing with mankind as a crowd. We suffer from too much machinery—from the governmental machine, the ecclesiastical, the military, and the educational machine. We are inclined to lump together all manual workers, all the poor, all the law-breakers. But human diversity is endless, and we neglect it at our peril.

Again, society must be on its guard against the "Simulator." Among these the writer gives the palm to the class of commercial evildoers, which is probably the most numerous, but the professionalising of something which ought not to be done for payment is more serious because more elusive. The professional mendicant, athlete, expert witness, the worldly cleric who uses the pulpit as a means of getting on, the labour leader whose only care is to keep his job, the professional agitator, the professional politician, and, above all, the *agent provocateur*, are plague spots which society should at all costs aim at stamping out.

We must conclude that no one element in society ought to be allowed to preponderate, since each is necessarily biased by its distinctive work and mode of living. The writer once again recapitulates the forces which have always been allowed undue sway: masculine ascendancy and its inevitable concomitant—militarism; clericalism, with its tendency to crush initiative and keep the intellect in leading strings; commercialism, with its callous blindness to everything but profit. The follies and futilities of the leisured classes receive their final measure of condemnation. All the elements must be duly balanced. "In the guidance of Society each social element should share according to the intelligence and public spirit of its members, and none should dominate."

H. REYNARD

Labour's Challenge to the Social Order. By JOHN GRAHAM BROOKS. (New York: The Macmillan Co. 1920. Pp. 441. 15*s*.)

"IF war comes between Capital and Labour, how shall you take sides?" This question was asked of the writer in 1894, and

in his opinion no rational answer was then possible. In this volume he attempts to give a reasoned reply.

At the outset he admits that Labour has as much right as any other portion of the community to get whatever it can. Everyone wants more money, more happiness. Labour wants it all, and at once. This impatient urgency may be an embarrassment, but we can see in it the very soul of progress.

Mr. Brooks makes no attempt to palliate the sins of his countrymen on either side in the contest. He is "fully aware of Trade Union treacheries and improprieties." He has an "ample record of them—corrupt leaders, hired thugs, despicable forms of violence." On the other hand: "There has been in the United States nothing dirtier or more lawless than that done under the dictates of capital."

Even to-day we find a feudal temper among employers. There is no doubt at all that, if it could be decided by secret ballot, a majority of employers would quickly make an end of Trade Unionism in America. The Trade Unions for their part are openly determined to make an end of the capitalist. They feel confident that they can organise production to much greater advantage without him.

The writer reviews in turn the lessons of Communism, Socialism, Syndicalism, and the New Guild. He refers to various Communistic experiments, none of which succeeded, and shows why utopias always end in failure. They assume a degree of collective sobriety, forbearance, and self-mastery which does not exist. They assume that liberty and equality are natural partners, whereas they are in truth difficult to harmonise. But the rocks on which they split are the property instinct, which they persist in treating as accidental, and the fact that the perpetual close contact required by the Communistic life becomes in practice intolerable.

Socialism offers a much more reasoned case against our present economic order, but its progress is by way of compromise and concessions. No experiments on a large scale have yet been made—Russia is not touched upon in this volume—but such experience as we have of Government control is not encouraging. State and municipal production resemble nothing so much as putting a dollar into the machine and getting out 75 cents.

Mr. Brooks can find nothing to approve of in his survey of Syndicalism, but a good deal in our social order to explain its existence. He is chiefly concerned with the aims and activities of the I.W.W., which he condemns for their immaturity and

impracticability. The assumption that the least skilled of the Labour mass can take over the management of industry is the most fantastic of utopian freaks. Moreover, the habits deliberately cultivated by revolutionaries—insubordination, sabotage, breaking of contracts, would form an impossible foundation for the building up of a coherent order of society.

The New Guild—a wholesome English compromise—is far less destitute of some sense of economic and political solidarity. The Guild idea deserves the most serious attention, and ought not to be, as it so often is, airily dismissed as merely "interesting," and "perhaps fruitful." Nevertheless, there is a good dose of utopia in its proposals, especially in the cheerful certainty that the Guild State will be rid of all politics, class conflicts, and factions.

Mr. Brooks has no ready-made cure to offer for industrial evils, but his repeated plea for impartial study and sympathetic understanding of their causes is very impressive. He sees some hope in the new spirit among employers, and real encouragement in the co-operative movement. Welfare schemes are to be commended chiefly for their experimental and educational value. They help us to make the very best of the wage system, while we have it. Profit-sharing has possibilities if it can break down Labour's suspicion. The originators of the idea openly avowed that it was a bid for Labour's allegiance against the Union. This the Unions can hardly be expected to forget or forgive. The individual worker's suspicion may be allayed only if he sees from the start what he stands to get, and if he is kept informed of what Capital is getting.

On the subject of co-operation the writer is really enthusiastic. Here we have democracy at its best. Co-operators are practical people with constructive aims, and they are trained in political and industrial realities. As employers of labour and financiers they are up against precisely the same difficulties as the employers and financiers in the capitalistic world outside, and the lessons they learn are invaluable. They come near to solving the problem of output and the temporary displacement of labour by machinery. They are practically free from the demagogue—that curse of democracy. And with all their business methods and business successes, co-operators never lose sight of their ideals, or lose hold of that something more than business and material gains for which they stand.

Apart from the co-operative movement, Mr. Brooks is not optimistic about Labour's fitness to govern. It will require a

great deal of help from the classes that have most to lose by the impending change, and he makes an earnest appeal to employers to give Labour its chance. "There is only one thing stronger than armies, and that is an idea whose time has come." We must leave wide open the door to new thoughts and ideas, and face the issue, if not with optimism, at least with courage, and with a definite hope that honesty and good will may help us over the crisis which has assuredly come.

H. REYNARD

The Triumph of Free Trade, and other Essays and Speeches. By RUSSELL REA. (Macmillan. 1920. Pp. 384. 15*s*. net.)

THIS collection of speeches, though chiefly consisting of those concerned with the Tariff Reform controversy, covers also a number of other subjects, such as the coal export duty, nationalisation of mines, corn and sugar taxes, social reform, etc.

In an interesting introduction Mr. C. F. G. Masterman truly says of Russell Rea that "he indulged in no personalities and recriminations. He appealed to reason rather than to passion." The speeches are party polemics, no doubt, but of a good class, and the criticism of loose arguments put forward, especially of the pessimistic prophesyings which at first were a large part of the stock-in-trade of Tariff Reformers, is effective. He always speaks as an optimist, believing in the good qualities and good prospects of his country.

When we seek for the more positive side of his arguments for Free Trade, we find some discussion of economic theory, but mainly the reiterated claim that the country flourished under Free Trade, that the shipping industry in particular grew great under that system and must be injured by anything that tended to restrict foreign trade. He was aware that this kind of argument from experience was one which could be used by both sides, but it lent itself best to the requirements of the platform. He states quite clearly his belief that Free Trade was adopted in this country, not because of any better understanding of economic theory by Englishmen, but because it so happened that Protection was mainly associated with dear food, and that the electorate would be influenced mainly by arguments (of a kind which were not too recondite) about the effect on particular industries.

So far as regards the class of less recondite and limited arguments are concerned, one feels that the ground is likely, in the

future, to be shifted. It will not be argued whether the production of pickles and jam and clothing are superior to the manufacture of iron and steel, etc. The difficulties of the thorough-going Free Trader are more likely to lie in convincing Labour that foreign competition is not dangerous to the elaborate system of standardised, and in many cases legalised, wages which has grown so much now in many trades which are more open to competition in the home market than the great trades which have in the past mainly provided the spokesmen of Labour. In the shipping trade also there may arise, more acutely than in the past, the question regarding the competition of foreign, and especially Oriental, seamen, whether British subjects or not.

Turning to the more general arguments, which go deeper, the Free Trade apologist may be required to go further than reiterating the argument that imports are paid for by exports and that therefore competitive imports do not cause unemployment. We have now a *régime* of paper money, and it may come to be perceived, more clearly than under the gold standard, that the important question is the terms of exchange, and that an increase of some imports may tend to lower the purchasing power of the pound sterling and render other imports, which we cannot do without, dearer. There is no trace in these speeches of any comprehension of this point. The author's conception of the nature of the crucial theoretical question is expressed on page 89: "Mr. J. L. Garvin says, as I have quoted already, 'it is true that every import must develop an export,' but he goes on to say, 'The vital question is, What do you exchange for what?' This is a perfectly accurate and fair statement of the point at which dispute arises between instructed Tariff Reformers and Free Traders." Under the new conditions the instructed Tariff Reformers may see that the question is not "What do you exchange for what?" but how much produce of British labour do you exchange for how much produce of foreign labour? To take a case in which the answer is not really in doubt—not a question of Free Trade *versus* Protection—suppose a foreign competitor undersells the British exporter in a neutral market. That, it will be agreed, is disadvantageous to us. The ordinary way of expressing the fact is to say that the competition throws people out of work; and although this is not a full account of what happens, it is not altogether off the point. A more correct statement of the permanent effect is that the terms on which we obtain our imports are less favourable as the result of this competition. It causes us to have to give more produce of British labour for a

given produce of foreign labour. When the competition is in the home market the answer is not so clear either one way or the other, but the case cited illustrates the point that the answer has not been obtained merely by showing that the immediate unemployment is ephemeral, that sooner or later imports and exports are made to balance.

The futility of arguing in terms of "employment" is illustrated in the chapter on "Imports and Employment," in which the author seeks to show where the Protectionist is wrong in contending that, if a British railway company buys an engine in Glasgow, there is more employment in Britain than if it bought the engine in Brussels. Without suggesting that the Protectionist is in any better case, it must be admitted that the author, in defence of Free Trade, gets himself into hopeless difficulties with a theory that the "imports are paid for by exports" principle is somehow peculiar to international trade and inapplicable to trade between groups of people in the same country. For this the economic text-books are, perhaps, to blame, in not examining the subject sufficiently. He also propounds the untenable theory that the engine could not have been bought in Brussels unless there was an *already existing* demand in Belgium for Northampton boots (or other British produce, of course) of equal value at existing prices.

The chapters on the export tax on coal and the nationalisation of mines may be read with profit, though it cannot be said that the economic theory of the export tax is worked out very far. The argument is to the effect that we have no monopoly, and that American competition in the coal trade overseas is likely to grow. The author does not appear to expect, in either chapter, that the demand for coal from all the European fields will grow faster than the supply. Is not that likely to be found to be one of the dominating economic facts of the future, resulting in an ever-growing scarcity price for coal? Recent experience seems to suggest that American supplies are very costly and will not prevent European prices from running very high. Possibly the after-effects of the war may prove to have given a misleading impression of the situation, but it is to be noted that the author is emphatically of the opinion that we have reached the stage of diminishing returns in mining. Are not other European coal-fields in like case, or about to become so? It is rather difficult to believe that the more easterly situated American fields can fail to have the same experience soon, even if they have not actually reached that point. The point of interest may shift from the

question of levying an export tax to that of determining who is to have the inevitable and growing unearned increment of scarcity value. C. F. BICKERDIKE

International Labour Legislation. By H. J. W. HETHERINGTON. (Methuen. Pp. ix + 112; Appendices 79. 6*s.*)

THE new Principal of University College, Exeter, has produced a most useful essay on the practical beginnings of the International Labour Organisation, a side of the League of Nations which, despite considerable lack of publicity, has not failed to impress itself as a living effort at constructive internationalism. It is essentially from this constructive standpoint that the book is of particular value. In the opening chapter, and in other passages, Mr. Hetherington raises a number of questions that touch the root of the general problem of international labour legislation; these are, in general, clearly set out, but the scope and object of the volume does not allow of their being extensively explored. The bulk of it is devoted to analysing the constitution of the International Labour Organisation and to reviewing in detail the first meeting of the annual International Labour Conference, held at Washington in November, 1919. The constitution of the Organisation was drawn up by the Commission appointed for that purpose by the Peace Conference, and it was eventually incorporated as Part XIII. of the Treaty of Versailles, and later in the other treaties with the ex-enemy Powers. (The English text is given in full as an appendix.) Members of the League of Nations are *ipso facto* members of the Labour Organisation, but not *vice versâ*, for there are the significant exceptions of Germany and Austria, which were both admitted to the Organisation by the Washington Conference, in accordance with special powers conferred upon it. In consequence, the greatest drawbacks which have been experienced from the Covenant forming part of the Treaty of Peace do not exist for the Labour Organisation. On the other hand, the fact that it is not included in the Covenant, and is not even mentioned in it, makes its precise relations to the organs of the League difficult to determine from the scanty and very general indications given on this point in Part XIII. of the Treaty. The institutions of the Labour Organisation comprise the Conference, the International Labour Office and the Governing Body, which controls the Office. Two chapters, devoted to the structure and authority of the Conference, contain an analysis, with interesting practical examples, of the provisions of the Treaty in this respect and a survey of the fundamental

questions which confronted the Paris Commission. What should be the proportion between the three elements in the Conference, —the Government, the employers and the workers? How should the non-Government representatives be appointed? Should the Conference be a "Super-Parliament" with direct, legislative powers? What form of international legislation is compatible with the constitutions of Federal States? Of each of these problems there is a discriminating review, though perhaps the point is scarcely sufficiently emphasised that the old diplomatic method of dealing with international affairs has been in great measure thrown aside, not only by the participation of employers' and workers' representatives, together equal in numbers to the Government representatives, but also by the recognition of the principle of voting by individuals, not by delegations, and of the binding character of a two-thirds majority of the Conference for draft conventions. At the same time, this binding character is, under existing circumstances, wisely limited to the initial obligation on the part of each Member of the Organisation, within one year or, in case of exceptional circumstances, within eighteen months, to bring any draft conventions so carried "before the authority or authorities within whose competence the matter lies, for the enactment of legislation or other action." The final word is thus left to each separate nation. "*Le grandi idee fanno i grandi popoli. E le idee non sono grandi se non in quanto travalicano i loro confini. La vita* nazionale *è lo strumento, la vita* internazionale *è il fine.*" As an estimate of the means, this still, in the main, holds good for us now as for Mazzini then. Yet, a vital change is registered both by the official international collaboration of Governments, employers and workers, and by the invaluable opportunity offered for the focussing of public opinion. It is sanely pointed out that publicity is the one true sanction for the enactments of the Conference. The Treaty lays down an elaborate procedure to be followed against defaulting Members, culminating in the employment of the "economic weapon," but this, difficult and insecure in itself as it is, appears in so guarded and optional a form that but little utility can be claimed for it. On the other hand, and especially as regards ratification of draft conventions, the efficacy of the sanction of publicity depends, in part, it is true, on the force of example, but in the end mainly on the supporting activity of the workers' organisations; hence the possibility of the balance of the Organisation being upset in the process of attaining tangible results, or of its internal collapse through impatient withdrawal of collabora-

tion. Mr. Hetherington raises an interesting question as to the balance of the three different interests represented in his consideration of the objection that the tripartite division is based upon a very transitional form of social organisation; he might perhaps have added in this connection that current lines of argument may lead to demur to the absence of similarly specific representation of the consumers.

The Preface is dated April, 1920, so that necessarily the account given of the Governing Body and the International Labour Office is somewhat unsatisfactory, since the former was only elected by the Washington Conference, while the latter, though its formation was energetically begun by January, 1920, for various reasons could not take very definite shape until its establishment at Geneva in July. Hence only a very slight anticipation is given of the enormous, and rapidly growing, amount of work performed by, and devolving upon, these two bodies. In dealing with the Labour Office, Mr. Hetherington does well to lay stress on the extreme importance of thoroughly adequate preparation of the various items on the agenda of Conferences, if practical legislative results are to be attained; the experience of previous international assemblies fully justifies his insistence on this point,—experience which both the Washington and Genoa Conferences, as well as the first meeting of the Assembly of the League, have in various forms amply confirmed. In his brief account of the Governing Body the chief emphasis is laid on the fact that of its twenty-four members there are, at present while the United States has not yet adhered, only four who do not come from European countries—two Canadians, one Japanese and one Argentine. It may be supposed that degree of industrial organisation and experience, quite apart from difficulties of distance, will occasion in practice European predominance; it requires, however, to be borne in mind that Labour is agricultural as well as industrial, and that any treatment of the dominating questions of credit and raw materials depends obviously enough mainly on the countries outside Europe.

Mr. Hetherington was a member of the Secretariat of the Washington Conference, so that his six excellent chapters on its circumstances, procedure, course of work and decisions are mainly written from first-hand knowledge. The principal of the decisions were the six draft conventions, respectively on the eight-hour day and forty-eight hour week in industrial undertakings, on unemployment, on the employment of women before and after child-birth, on the employment of women during the

night, on the minimum age for admission of children to industrial employment, and on the night work of young persons employed in industry. Six recommendations were also adopted dealing with unemployment, reciprocity of treatment of foreign workers, the use of white phosphorus in the manufacture of matches, anthrax, lead-poisoning, and Government health services. A most useful appendix gives the English text of these draft conventions and recommendations. Mr. Hetherington does not confine himself to a bare *résumé* of the discussions in the Commissions and the Conference, but supplies judicious criticism and illuminating observations on the actual working of an international body of indisputable weight and importance; in particular, his remarks on labour problems and Japan, China and India should be closely noted. The closing summary includes special notice of the responsibility attaching to the Governments in their attitude to the Organisation and to the crucial question of ratification of draft conventions, as well as an examination of the position of members of the Conference as delegates or as representatives; in either case as is most justly insisted, a considerable degree of continuity in the *personnel* of the Conference is essential, if sound work is to be achieved and community of will truly incarnated in a living institution. The general conclusion reached is that "no one, perhaps, would be disposed seriously to question the success of the Washington Conference," and that, although the Labour Organisation inevitably reflects numerous divisions of opinion and must not be expected as yet to alter profoundly the economic and industrial fabric of the world, yet its very existence points with great significance to the reality "of a sufficient community of will and of interest to make its establishment possible. . . . One's great hope for the Organisation and the League is that their success will be as much in the inward task of focussing, supporting, and instructing the common will and hope of men for justice and peace as in the sphere of outer enactment. It is a battle of the spirit that has to be won." As a pendant to this may be quoted the final words of a well-informed and very favourable article on the Labour Organisation which recently appeared in an official German review. "To the International Labour Organisation, in addition to its specific task of creating a code of international Labour legislation for the welfare of the workers, will fall a further task, that of bringing nearer the day of reconciliation between the peoples estranged by the war."

B. H. SUMNER

The Case for Nationalisation. By A. EMIL DAVIES, L.C.C. (London: George Allen and Unwin, Ltd. Pp. 305. Price 2*s*. 6*d*. net.)

MR. EMIL DAVIES is to be numbered among that, no doubt, fortunate section of the community which believes there is some one given alteration in the structure of society which, if brought about, would solve nearly all the evils from which the body politic so manifestly suffers. For some the panacea lies in the taxation of land values, for others in the abolition of inheritance of property, for others in the dictatorship of the proletariat, for others in a new system of education, and so forth. There is no doubt in Mr. Davies' mind as to the remedy. The chief hopes that the future holds are summed up for him in the single word "Nationalisation." His book, with its copious extracts from newspapers, gives the impression that he eats, drinks and dreams nothing but nationalisation. A follower of Freud would certainly talk at large about a "nationalisation-complex." Unfortunately, Mr. Davies' enthusiasm for the cause is so great as to have destroyed to a large extent his critical faculty. No weapon appears to him too blunt with which to assail the enemy, with the result that, although his book contains a few good arguments, it also comprises a terrible amount of loose reasoning and bad, prejudiced thinking. This is the greater pity because, in Chapter VI. on "The Right to Strike," he shows that he could have written a very different sort of book, and one that would have been worth reading.

Mr. Davies professes that his book is intended as an answer to the attacks that are made in the Press and elsewhere against Nationalisation and as an up-to-date statement of the case for Nationalisation. His method is to attack private enterprise roundly and then to assert dogmatically that Nationalisation would afford the one and only cure for the evils he stigmatises.

The work of the industrial system during the past hundred years, which, for all its faults, has enabled the population of this country to be raised from ten millions in 1800 to forty millions, and which, moreover, has raised the general standard of living and comfort, is dismissed by Mr. Davies as follows: "If we could have had the good side of this initiative which underlies private enterprise, without the bad, the improvements and benefits it has brought would have been spread over the whole population instead of being limited to the few who were either astute, fortunate or

well connected." This assumption, for which no proof is advanced, that the capitalist receives the whole of the advantage resulting from the efficient conduct of industry, recurs throughout the book and is the chief basis of Mr. Davies' case against private enterprise.

The full weakness of the book is revealed by the arguments—it would be truer to say by the lack of arguments—with which Nationalisation is supported. Mr. Davies informs us that the cardinal sin of the present system is that it means production for profit, whereas Nationalisation would mean production for service. But he makes no attempt to get behind these phrases and to show how the system he advocates would work out as soon as sufficient time had elapsed for the momentum of the present industrial system to fall off. He appears, indeed, to regard certain experiences in other countries as sufficient proof of his general contention. In Chapter V., entitled "The Success of Community-owned Undertakings," the reader is told that the Commonwealth of Australia is successfully running a bank, that the Queensland Government has set up a State Insurance Office, that the Province of Saskatchewan is lending money to farmers, and so on. Under the heading "There is no limit to the beneficial activities of State enterprise when it has not to think exclusively of earning profits for a small number of people," we are gravely informed that films of bird life in Saskatchewan have been secured by the Chief Game Guardian of the Province and a photographer employed by the Dominion Government, "which will be of great educational value." From these examples the inference is drawn that similar success would attend the nationalisation of the industrial life of Great Britain.

If the "case" for Nationalisation as put by Mr. Davies is weak, his reply to the attacks in the "Capitalist" Press is certainly no stronger. The chief argument against Nationalisation of which he appears to have heard is based on its alleged inefficiency and lack of enterprise, and with this Mr. Davies deals, though in a very unconvincing manner, but all the other factors of which account should be taken he completely ignores: the increased danger of international friction when the State is responsible for industrial policy; the difficulty of price fixing; the congestion of Parliamentary business; the difficulty of securing the training of leadership over a long period; the attitude of State-controlled enterprise towards invention—especially towards the development of substitute products; the effects on the accumula-

tion of capital; to all these and other difficulties there are no doubt answers to be given and schemes to be devised for overcoming them, but Mr. Davies does not give us the benefit of his views on these matters.

Mr. Davies declares that the "inefficiency, lack of enterprise and uneconomical working" of existing Government management are due to the fact that "the higher grades [of the Civil Service] are the preserves of a small class, the incompetent class to which I have alluded, coming principally from the older Universities," and that "this governing class does not wish to develop State enterprise that would compete with and diminish the profits of private undertakings owned or controlled by its own relations and friends." This latter statement is made with still greater emphasis on p. 151, where the incompetence of "many of those in charge of our Government Departments" is explained as follows: "The reason is that they are for the greater part recruited from the limited class which governs the country; this class as a whole (there are, of course, exceptions) is ignorant of the conditions under which the mass of the people of the country live; it is absolutely out of sympathy with them, *and it has no desire that the State or Community undertakings should compete successfully with the privately-owned undertakings which they and members of their class own, control, and live by.*" (The italics are Mr. Davies'.) This monstrous imputation on the moral code of the British Civil Service comes singularly ill from a man who in the same book can devote a chapter to what is in the main a defence of the National Telephone service, quoting with approval the new schemes of development put forward by a Department, the present head of which is one of the most important business men in the North of England.

It can be said without the smallest fear of contradiction that the arguments of this book would convince no intelligent person who was not an already enthusiastic advocate of Nationalisation. In its method it is unscientific in the extreme, and it can only be called "popular" in the worst sense of the word. Out of 300 pages, 90 are composed entirely of extracts from newspapers, and similar cuttings form a large part of the remaining pages, the book as a whole appearing to have been largely designed to meet the needs of, and provide illustrations for, a type of orator with whom we are but too familiar.

In fairness to the author, it should be stated that at the end of the book are set out, in the form of draft Bills, three schemes for the nationalisation of land, inland transport, and coal mines,

the intrinsic interest of which is increased by the fact that they have been adopted by some of the chief Labour organisations in the country. C. W. GUILLEBAUD

The National Needs of Britain. By ALFRED HOARE, M.A. (London: P. S. King. 1920. Pp. 32. 6*d.*)

WEIGHTY opinions on many important questions are here comprised within a few pages. There is no hurry about deflation, in the author's judgment. We shall be lucky if we escape further inflation consequent on the payment of the huge sums that fall due in the near future. The Currency Committee did not realise the difficulties of economy. They shut their eyes to the impossibility of stopping large increase of expenditure: "The needs of housing, of a proper hospital and public health system, of national information, and many other vital matters." The need for expenditure of this kind is connected with the writer's view of the relations between Capital and Labour. He recognises that there is some ground for that hatred of "Capitalism" which is now rampant. Things have come to such a pass, he thinks, that we have to choose between "the old Individualism tempered by modification of the rights of private ownership, or . . . grasping the whole industrial machinery and ousting Individualism altogether in favour of Collectivism." Mr. Hoare is disposed to leave to posterity "high-flown but impractical schemes."

The "Labour Solution," the latter of the two alternatives above stated, appears to him "so very much more difficult of accomplishment that the other one must hold the field for practical purposes." But the "modification" which the other solution involves, the improvement of distribution by large expenditure on national services, is drastic. To provide for these services, and at the same time meet our debts without incurring additional inflation, immense taxation will be required. Twelve or thirteen hundred millions is the lowest we can hope for, and it will not be surprising if this figure is considerably exceeded. Another urgent national need is publicity. "Auditors are employed to see that the interests of shareholders are not being played tricks with by the directors; why should there not be official auditors to protect also the interests of workmen?" There are also national needs of a less material order, which we commend to the serious attention of our readers.

F. Y. EDGEWORTH

English Public Finance from the Revolution of 1688, *with Chapters on the Bank of England.* By HARVEY E. FISK. (New York: Bankers' Trust Company. 1920. Pp. 241. 8vo.)

Les finances britanniques. Par GEORGES LACHAPELLE. (Paris: Sirey. 1920. Pp. 316. 8vo.)

THE appearance in increasing numbers of works of this kind will be gratifying to those who excuse their ignorance of foreign finance by the complacent opinion that we have nothing to learn of foreign countries in the matter of finance, but that they have everything to learn of us. As the Pharisees will not read studies of this character, their complacency will not be disturbed by any whiff of criticism which may be uttered. To others of us these outside views offer some interest and suggestion. Above all, they set us thinking why our literature is so barren in the comparative study of financial systems.

Mr. Fisk's volume is intended as a work of ready reference for the salient facts in regard to the finances of the United Kingdom. He hopes that it may contribute to a better understanding in America of our present financial problems. It is perhaps sufficient to say that it is well and carefully done and should serve its purpose.

M. Lachapelle is somewhat more ambitious and less successful. He has laid under heavy contribution a few English writers, but has not always followed them with fidelity. In his account of what may be called the constitutional aspect of our financial system we find an average of at least one error on every page. The detailed description of the income tax is, of course, already out of date. The historical section upon War Finance is more accurate, but is not well planned to scale, some sections being dealt with in minute detail and others neglected or inadequately touched upon. As a broad and general view of our finance it will afford the French reader a fairly good outline sketch, in spite of imperfections. He resurrects, with an enthusiasm which we cannot share, the advertisements and placards of the War Savings Committee exhorting us to lend money to Government and informing us that extravagance sheds the blood of heroes—a sentiment which must cause a twinge to Government itself.

Both writers criticise the inflation, for which they hold Government responsible, during the war. Neither of them offers any concrete suggestion for our future guidance in financial policy.

HENRY HIGGS

Monetary Catastrophes of the War. Le Peripezie Monetarie della Guerra. By ACHILLE LORIA. (Milan: Treves. 1920.)

THESE were lectures given by Professor Loria at the Commercial University, Luigi Bocconi, Milan, in April, 1919; and a good deal has happened since then. The powers of the author are well known to us all, and what he writes, even on currency, is worthy of respectful reading.

As disease leads to medical discoveries (says our author), social maladies like the present reveal economic laws (2). The Napoleonic War led to an expansion of paper currency, but not quite as now, or nearly so great. The effect then was to clear out the reserves of banks; the late war actually swelled them beyond precedent (7, 8). Over-issue through cheques was less, for cheques were little used (25). England did not much offend then, but is a chief offender now (10). He gives figures for the present issues in the several countries of the world (34 *seq.*). Like Professor Cassel, he thinks the balance of trade does not tell us everything (40), nor does the mere amount of issues, but they are elements to be viewed together (56 *seq.*). In England there is not (he thinks) an inconvertible paper currency, but a "limited convertibility," leading to three different kinds of depreciation: (1) Of notes compared with coin; (2) of coin compared with bullion; (3) of bullion in the foreign money market (81–2). He comes near to Professor Cannan, but will not quite agree to his Ricardian position,[1] that "a note convertible into a coin which is inconvertible into gold is *de facto* inconvertible and can therefore be over-issued" (80, but compare 74). He has apparently discussed the whole matter in a communication addressed to English economists in 1916 (70 *seq.*) Without opportunity of hearing the other side, a critic can hardly judge; but from the extract given by our author it would seem that his disagreement with Professor Cannan is not fundamental. He must be aware also that the alleged convertibility of the Treasury note, founded on a mere reference on the face of the note to the Act authorising it, is not to most holders of such a note an assurance of convertibility. It is otherwise with the notes of the Bank of England, where the promise is unequivocal.

Most interest will probably be attached to the positive proposals for the saving of the situation, forming the subject of the

[1] "A paper circulation not convertible into specie differs in its effect in no respect from a metallic currency with the law against exportation strictly executed." Ricardo, *Reply to Bosanquet* (*Works*, ed. MacC., p. 327).

last chapter of this book (131 *seq.*) on "Remedies." False remedies include the writing down of the value of notes by legislation, as the Convention in 1793 demonetised 500 millions of assignats for 100 francs on the ground that only aristocrats used them (132). This means national bankruptcy, and would cause a further fall in the paper, though (as Professor Loria mentions) respectable economists, like Sismondi and Baranovsky, have proposed it (132–137). He himself would like to see an annual withdrawal from circulation of a good-sized part, say, a tenth, of the paper money (140). It must not be done by a new loan, which is only an opportunity for fresh over-issue, nor by a capital levy (140, 141), but by a plan "the burden of which will fall on no one" (142), viz., to impose a tax payable in notes and then to take the notes and burn them. This would strike everyone in exact proportion to his wealth; all would remain relatively in the same position (143). The State in Italy, no doubt, could procure the paper money (for the combustion) by selling the public lands, though the public thereby loses the use of the public lands, and, while there is no diminution of the general wealth, there is a redistribution of it (144–6). As regards the future of currency, instead of the ordinary gold standard system, he would propose that notes be issued inconvertible for domestic purposes and convertible into gold for those having debts abroad (146, 147), and he favours an inconvertible International Note, into which the national notes should be convertible[1] (155), or even a convertible International Note under safeguards (157).

We all want to see the paper price of gold bullion come down to the Mint price. The holocaust of notes has its attractions for a people suffering from a plethora of paper money. Yet, to say nothing of the debatable fraction of reduction (a tenth being perhaps too much at one time), few Chancellors of the Exchequer will have courage to prefer a coming public advantage, involving repayment of loans in appreciated money, to the immediate fiscal advantage of the money itself in hand. The International Note is likely to be remoter still, perhaps one of the latest services of the League of Nations, appearing (let us say) after, and not before, Universal Free Trade.

It is not blame to say that Professor Loria has given us counsels of perfection.

J. BONAR

[1] As, in England during the Napoleonic War, country bank-notes were convertible into the inconvertible notes of the Bank of England, and in Italy from 1866 to 1874 the district notes were convertible into the inconvertible notes of the National Bank (155).

Labour and National Finance. By PHILIP SNOWDEN. (Parsons. 4*s.* 6*d.* net.)

IF the Labour Party comes into office, Mr. Philip Snowden is the most likely man to become Chancellor of the Exchequer; so his views on national finance have a particular interest. People who have hitherto regarded him as an extremist will be surprised at the moderation of his book. Unlike most writers on finance, he has no belief in the "posterity will pay" theory of war finance; he quotes Mr. Gladstone's statement in 1853 and declares that it applies "with greater force and truth" to our present huge National Debt,—"Our debt need not at this moment have existed, if there had been resolution enough to submit to the income tax at an earlier period."

Six years ago Mr. Lloyd George thought it necessary "to gain public support for the war; and a large immediate increase of taxation might have had the effect of damping the ardour of those who were prepared to applaud the military adventure, but who were unwilling to make financial sacrifice for its support." This view, if it was actually held by the Chancellor in 1914–15, was surely a slur on the patriotism of his countrymen: if true, it raises the difficult question, Should a country be deluded for its own benefit? A democracy ought always to face the facts; in any case there was no real alternative; as Mr. Snowden sees, "it is a fallacy to suppose that by borrowing for war purposes the generation prosecuting the war is relieved from any part of the payment of the cost of the war." The war must be paid for at the time it is being waged, as Adams said in his *Public Debts* thirty years ago.

Mr. Snowden is sufficiently right in saying that the war has been paid for by the present generation in three ways: (1) by special taxation; (2) "by an enormous depreciation in the capital value" of Government and municipal stock, debentures and other fixed interest-bearing securities (Mr. Snowden says "shares"); and (3) by the increase in prices. Consequently Mr. Snowden maintains that the cost of the war "could have been met without borrowing." That may be true; the question is—would people have stood the taxation involved? Mr. Snowden would no doubt reply: "If they refused, they did not deserve to win the war."

All this seems very sound, but it cannot be reconciled with our author's advocacy in later chapters of a capital levy, since, on his own showing, the levy has been made already. As he says on page 51, the timid financial policy of the Government has caused "the anonymous repudiation of a vast amount of debt";

on the next page he adds, "the real value of Consols has fallen from £72 10*s*. in July, 1914, to £17 in June, 1920." In view of these quotations, it is strange that Mr. Snowden cannot see that there is a strong case for a levy on war fortunes, but no case at all for a levy on pre-war wealth, except so far as in certain cases (ships, coal, and wool) the owners have become actually better off as the result of the war.

Mr. Snowden quotes the absurd Memorandum of the Board of Inland Revenue on "Increases of Wealth During the War," but he does not, as one would expect from his earlier chapters, take the point that there has been no aggregate increase of wealth, although the then Chairman of the Board appeared unable to distinguish between money and wealth. The case would be different if one could accept the estimates of £24,000,000,000 made by Mr. E. Crammond and Mr. S. Arnold, M.P., but there is no kind of evidence to support such a figure. Mr. Snowden accepts the Labour Party's theory of taxation "as a means by which social conditions may be ameliorated," and Mr. Asquith will be vexed to find himself quoted as saying, "Taxation is a potent instrument of reform." Most economists regard this as a dangerous view. Is not Mr. Snowden rather old-fashioned in suggesting that "an individual's ability to pay is usually in proportion to the protection and benefit conferred upon him by the State"? Mr. Snowden borrows Mr. Hobson's theory of "surplus,"[1] though he does not explain why the cost of governing a country should be regarded as something to be paid out of the petty cash account.

The weak point about the financial proposals of the Labour Party and its spokesmen is that they are always trying to free the wage-earner from his contribution towards the cost of government; if the Trade Unions demand power, they should accept responsibility. Mr. Snowden admits that "a claim for the total exemption of the working classes from taxation is indefensible," but it was certainly made by the miners' witness before the Royal Commission on Income Tax. Mr. Snowden joins Mr. Hobson (and, indeed, most economists) in denouncing indirect taxation, though presumably he would not object to reasonable duties on tobacco and intoxicants. Would it not be much better, even in the interest of the wage-earner, to lower the point of total exemption from income tax, say, to £100 a year for single persons without dependents, and use the revenue thus obtained in order to sweep away the duties on tea, sugar, and every article of ordinary consumption except tobacco, intoxicants, and petrol?

[1] Economic Journal, Vol. xxix., p. 323.

Mr. Snowden does not deal with the effect of the war and of the immense increase in wages on the distribution of the national income between the various classes. If he were to do so, he would find that the wage-earning classes are getting a much larger share than they had before the war.

One is glad to see that Mr. Snowden has perfectly sound views on the subject of currency. With a passing kick at Mr. Sidney Webb as "a false prophet," he smites the Labour members of the Wigan and Sheffield Town Councils for their proposals "asking for Parliamentary powers to build houses and to carry out other municipal work by means of Treasury notes." He is less orthodox on banking questions; he thinks that "the nationalisation of banks is a matter of the utmost urgency." How would a Government official decide whether a tradesman, or a merchant, or a manufacturer was sound enough to have the advance for which he asks? Supposing the official made an advance which proved not to be justified, would the loss fall on the taxpayer, and, if so, why? We have some experience of State advances over the housing scheme, and we find, in practice, that the thing does not work; weeks of negotiation, inspection certificates, and so on are required. In business you want your advance to-day or to-morrow, not two months hence. It is a natural corollary that Mr. Snowden should want the Government to fix the Bank Rate, but, even with control of all the banks, how is it possible "for the State to effectively regulate the level of prices"?

It is a mistake (on the same page) to imagine that "the profits of the insurance companies are colossal": an examination will show that their share capitals are almost dangerously small in comparison with their responsibilities. This book naturally challenges comparison with Mr. Hobson's *Taxation in the New State*. Mr. Snowden writes with more care than does his chief rival for the post of economic adviser to the Labour Party, and his style is singularly lucid, whilst his book as a whole is free from the exaggerations so common to the political writers of all parties. J. E. ALLEN

Mohammedan Theories of Finance. By NICHOLAS P. AGHNIDES. Studies in History, Economics, and Public Law, Columbia University. (New York: Longmans, Green and Co. 1916. Pp. 540.)

THE Mohammedan law is one of the few subjects which it is still the fashion to present in the quaint and rather obscure

phraseology of writers who lived between the eighth and fourteenth centuries A.D., and it is seldom that an attempt is made to set forth the legal conceptions of the Mussulmans in familiar modern garb. Still less is any trouble taken to indicate the changes and modifications that have taken place in the practical application of the theories of ancient legislations to modern life. Much confusion is, indeed, caused by want of discrimination between what is obsolete and what is still in force. These are some of the causes which lie at the root of the complaint that is often made by those who have anything to do with the administration of the Mahommedan system as to the difficulty of ascertaining the rule of Mahommedan law on any given point. This evil is to some extent also traceable to a misunderstanding of the doctrine of Taqlid, which is too readily, but quite erroneously, assumed to mean that to every difficulty of practical life some theory or rule evolved by the cogitations of ancient jurists is necessarily applicable. That this notion is unfounded can be seen from the discussion of the subject in *The Principles of Mahommedan Jurisprudence according to the Sunni Schools of Law.*

M. Nicholas P. Aghnides' *Mahommedan Theories of Finance*, though not immune from the above criticism, is a creditable contribution to Studies in History, Economics, and Public Law, in promoting which the Columbia University is doing such valuable work. The book shows considerable research, and the learned author, we note, has resorted mainly to well-known and authoritative sources for his information. It is to be regretted, however, that he has not attempted to express himself in simpler language and, as far as possible, in the current phraseology of modern lawyers. By adhering to too literal a translation of Arabic juristic expressions, he has often made it unnecessarily difficult for an ordinary reader to follow his discussions. As a striking example of this we may cite Chapter VIII. in Part I.

Part I. is occupied with a sketch mostly of the topics which are generally dealt with by the Arab writers as appertaining to the science of Usul or the sources of law. The bibliography attached to Part I. is well arranged and accurate, but it is not made clear whether the author had the opportunity of consulting all the authorities mentioned there, for many of the more ancient writings are not available, at least in India, and are only familiar to students of Mahommedan law and theology through citations in the current treatises.

Part II. deals with the main topic which furnishes the title

of the book—*i.e.*, theories of Mahommedan finance. It is divided into two sections—"Revenue" and "Expenditure"—and consists of fourteen chapters, excluding the Preliminary Remarks and the Summary and Conclusions. The discussion is comprehensive and is based on well-known works of authority, such as Hedaya and its commentaries, Fatava Alamgiri, cited as Alamkirriyyal, Durar, Minhaj, Mudawwanah, etc. But it would have been well if the learned author had pointed out, with respect to most of the old devices for raising public revenue and the elaborate rules regulating their application, that they have only an antiquarian interest, for in few, if any, Mahommedan countries have they any force at the present day. Indeed, many of these theories were never fully adopted by Mahommedan States even in the early days, and merely represent well-meaning though futile efforts on the part of theoretical legists to guide the State by a code of highly ingenious and often artificial deductions from a few simple authoritative ordinances laid down for a more or less primitive condition of society. We may also remark that M. Aghnides could have made his book more useful for study or reference if he had attempted to digest the matter and eliminated a considerable amount of obviously useless and superfluous cases which are given in the original works by way of illustration.

On the whole the compilation cannot fail to be of much interest to those engaged in the study of the history of public and administrative law among different nations. The book is well printed on good paper.

ABDUR RAHIM

Per una Riforma Socialista del Diritto Successorio. By Professor EUGENIO RIGNANO. (Bologna : Zanichelli. 1920. Pp. 165.)

IN this little book Professor Rignano of Milan takes up again the proposal, which he first made nineteen years ago in his larger work *Di un Socialismo in Accordo colla Dottrina Economica Liberale.* The proposal is that the taxation of inherited wealth should be made "progressive in time"; that is to say, that, on the death of any person, that part of his property which is due to his own saving should be taxed at a lower rate than that part which has already changed hands once, by inheritance or gift, and the latter part again at a lower rate than that which has already changed hands twice, and so on. Professor Rignano contends that such a tax would actually encourage work and saving by those desirous of leaving property at their death, and would also tend to create a less unequal distribution of income. If paid in

land or securities, it would have the further advantage, in his view, of facilitating the gradual nationalisation of land and capital, while not involving the State in the necessity of paying compensation to private owners. This proposal has been discussed by Professor Pigou in his *Wealth and Welfare* and by the present reviewer in his *Inequality of Incomes*, and has been briefly noticed by a few other writers, but it has attracted much less attention than its interest and merits deserve.

Professor Rignano's latest book contains, first, the Italian version of his two articles which appeared in the ECONOMIC JOURNAL for September, 1919, and September, 1920; second, a letter addressed by him to Signor Turati, the Italian Socialist leader; third, a series of opinions on the proposal by a number of Italian economists, of whom Professors Einaudi and Graziani are the most eminent, and Professor Rignano's comments on these opinions; and, finally, the draft of a Bill designed to give legal effect to the proposal in Italy. Both the second and third parts of the book will be interesting to readers who start with some knowledge of Professor Rignano's ideas. On the whole he has the better of his critics, some of whom appear not to have thought very long or very clearly before hastening to attack a project which offended their conservative instincts. Thus a number of criticisms hinge upon the alleged impossibility of following particular pieces of land or particular bundles of stocks and shares through a succession of changes of ownership, in order to determine the tax to be imposed upon them on the death of their owner for the time being. But Professor Rignano does not propose to attempt that which these critics allege to be impossible. He proposes only to divide an inheritance for the purpose of differential taxation into "quantitative," and not into "qualitative," portions. In other words, he proposes only to take account of the money value of the total taxable inheritance, as compared with the money value of those portions of it which have already changed hands once or twice, as the case may be, by inheritance or gift. More serious, therefore, is Professor Einaudi's argument that changes in the value of money will disturb the working of the scheme. Professor Rignano's reply is, first, that in normal times these changes may be neglected, "since perfection is not of this world," and, second, that these changes could be taken into account, if it were thought worth while, by means of an index-number, presumably of capital values. The same reply might be made as regards changes in the rate of interest. Changes markedly greater than the average in particular groups

of capital values, strong cases of "unearned increment" or decrement, might require further special adjustments. But this is a point of detail. Professor Rignano's letter to Signor Turati sketches a scheme which, he thinks, should be immediately adopted. Existing inheritance taxes should remain unchanged, but two super-taxes should be added when the total inheritance is greater than a certain amount. The first would apply to that part of the property of a deceased person which had already changed hands once by inheritance or gift, and would absorb half the net inheritance after the deduction of existing taxes. The second would apply to that part which had already changed hands twice, and would absorb the whole of the net inheritance after the deduction of existing taxes. In order to give the scheme an early start, it would be assumed that the property of all persons living at the moment when it came into operation consisted, as to two-thirds, of the results of their own saving and, as to one-third, of property which had already changed hands once by inheritance or gift. Payment might be made in Government securities, which would be cancelled on receipt; in land, which would be handed over to local authorities; or in industrial securities, which would be handed over to the appropriate trade unions and thus confer upon the latter, so far as ordinary shares were concerned, some degree of shareholders' control. Both local authorities and trade unions would be required to pay into the National Exchequer two-thirds of the rents and profits which accrued to them under these arrangements.

In passing judgment on Professor Rignano's scheme, it is well to begin by considering, purely as a fiscal instrument, the type of inheritance tax proposed by him. The theoretical advantages of such a tax are great, so far as its probable effects on work and saving are concerned. On the other hand, there are evidently practical difficulties in the way of its application. But it does not appear that these would prove insurmountable, if it were thought worth while to make an effort to surmount them. The desirability of using such a tax as a means of nationalisation is a quite separate question, and obviously depends upon one's view as to the desirability of nationalisation, whether in general or in particular cases. Assuming nationalisation to be desirable, there is much to be said for Professor Rignano's method of nationalising; assuming it to be undesirable, there is still much to be said for his method of taxing.

This book renews in me, so far as this country is concerned, two old desires. The first is for a Royal Commission, containing

a fair complement of economists, to inquire into the whole body of our law relating to the inheritance of wealth. The second is for an English edition of at least the more important parts of Professor Rignano's valuable and suggestive writings on this subject.

HUGH DALTON

Trattato di Economia. By PROFESSOR ULISSE GOBBI. (Milan: Società Editrice Libraria. 1919. Pp. 653.)

THE author of this substantial and ably-written book is Professor at the Bocconi Commercial University at Milan. His apparent object has been to provide a suitable text-book for use in connection with a Commerce Degree Course of the more enlightened type, in which a study of general principles is illustrated and supplemented, but not supplanted, by a detailed study of commercial and industrial facts. Accordingly, though he succeeds in deploying effectively large bodies of facts, chiefly from Italian sources, his exposition never degenerates into mere uncritical narration, and never ceases to be analytical in spirit. The first four parts of this book, dealing respectively with the Field of Economics, with Elementary Economic Operations, with Wealth, and with Demand and Supply, occupy 260 pages. The first three parts are markedly preliminary, but contain much lucid discussion of economic concepts and definitions. A notable feature of this discussion is the prominence given to ideas derived from jurisprudence and commercial law. The almost complete divorce between economic and legal studies in this country is often a source of weakness both to economists and lawyers, and the advantages of a closer connection are illustrated by Professor Gobbi's treatment, for example, of the idea of property (pp. 62–76). As regards income, I am glad to have his support for two propositions which I have maintained elsewhere, first, that it is reasonable to include in any person's income during any period all inheritances and gifts received during that period (pp. 80–1), and, second, that periodicity is not a necessary attribute of income (pp. 85–6). On this latter point his views agree, on the practical side, with the recommendations of the British Income Tax Commissioners regarding "casual profits" and the proper interpretation of the phrase "annual profits."

Though he does not develop it in detail, Professor Gobbi appears to hold a theory similar to that of Mr. Hobson on "unproductive surplus" (pp. 246–9). This theory is invoked in his discussion of the elusive ideal of "social justice" in distribution. "To the capitalists should be given no more than is necessary

to secure the formation and accumulation of capital in its various applications; all the rest should go to the workers, not in order to reward them justly for their work, but in order to improve their condition as human beings" (p. 258). But not so easily is the tail of justice salted. Of *how much* capital is the formation and accumulation desirable? And what balance is to be struck between the desirability of a more equal present distribution and a greater future accumulation? To these questions the unproductive surplus theory gives no adequate answers, though Professor Gobbi, as distinguished from Mr. Hobson, does not deplore the fact that an abnormally large fraction of unproductive surplus is liable to be saved. But, passing over these difficulties, Professor Gobbi pricks many verbal bubbles when he declares that "at bottom those who speak of social justice believe that it should come about by means of an improvement in the condition of the working classes, but instead of saying this straightforwardly, they seek some higher principle from which this can be deduced as a logical consequence" (p. 258).

Part V., which occupies considerably more than half the book, deals with Industrial Organisation, and is subdivided into five sections—Industry, Enterprise, Enterprise in Relation to Consumers, Financial Resources and Human Resources. Among the subjects treated at some length in the course of this part are the various forms and methods of the co-operative movement, of State intervention in industry, of public finance, and of the remuneration of labour. As regards public finance, Professor Gobbi elaborates a fundamental principle, which is none the less sound in that it is seldom stated and difficult to apply to practice. "As in private expenditure a person distributes his consumption in such a way that the marginal lira has the same importance in whatever direction it is expended, so in the systematisation of public finance one should aim at this result, that, in the opinion of those who determine public policy, the marginal lira should have the same importance, that is to say should be equally well expended, whether left in private hands or handed over to the State" (p. 361). In his discussion of public borrowing, as compared with taxation, he is a little unguarded in asserting that "in no way can one generation throw any burden whatever on to successive generations" (p. 380). For, in order to make this proposition true, the word "burden" must be interpreted narrowly. His summary of the class interests favourable to a war-time policy, in which borrowing predominates over taxation, is illuminating. But it is doubtful whether many of those concerned reason so

clearly as Professor Gobbi assumes on a subject which has led to some differences of opinion even among trained economists.

His comparison of various methods of wage payment is facilitated by an excellent diagram (p. 564). From this the conclusion, to which Mr. Cole and others have already drawn attention, leaps to the eye, that current "bonus systems" are equivalent to regressive piece rates, and are thus natural objects of suspicion and dislike to wage-earners. Professor Gobbi defends such systems on the ground that they afford some guarantee to the operative that increased production will not lead to rate-cutting by employers (p. 566). But surely this is only because the systems themselves provide that the rate shall be cut automatically. The automatic cut, moreover, differentiates against the more efficient worker. Another point of some interest is the argument (pp. 164 and 447) that the supply of new capital is very inelastic. If this be true, it may seem that current doctrines on the effects of taxation on saving, and also part of the theory of distribution, as developed, for example, by Professor Pigou on the assumption that the demand for labour is distinctly elastic, will need to be reconsidered. Professor Gobbi, however, does not distinguish between the elasticity of supply of new capital in the world as a whole and of that seeking investment in a particular national area. But it is obvious that the latter elasticity will generally be much larger than the former. A statistical investigation into the elasticity of supply of capital might yield some very valuable results. Perhaps Professor Gobbi, with his rare combination of analytic and realistic gifts, will put his fellow-economists under a further obligation by undertaking such a study.

HUGH DALTON

The Slippery Slope. By WILLIAM AMIAS BAILWARD, M.A. (John Murray. Pp. viii+236. Price 10*s*. 6*d*.)

THERE is no student of social history but must have sometimes felt keenly the waste of experience implied in the passing of the generations. Our fathers experiment and fail and succeed; by some of their lessons we profit, others we let slip; and it would seem that more often than not our children insist on beginning again *de novo*, and repeating all the old mistakes. In our happier moods we hope that this is not the whole case; that the new start is made at a higher level, and that it is on the whole better that each generation should make its own experience, with all its chance of failures, rather than be fettered by a past which is not its own. The constant appeal to living experience is the great

safeguard in social administration; and it is this appeal, combined with a ripe wisdom and wide knowledge, which lends so great a value to the essays contained in the volume before us. The late Mr. Bailward was eminent among social workers of London for his long life of devotion to the help of the poor: the centre of his work was the Board of Guardians in Bethnal Green, and from that it radiated in many directions; it is said that at the time of his death he was member of thirty-five committees. He was able, therefore, to draw upon a rich store of experience, which his sense of humour and facility of expression enabled him to present in a most attractive manner. The "Notes from a Workhouse Examination Committee" should be read by everyone who is inclined to regard the problem of pauperism as a simple one; and the paper on "Democracy and Local Elections" deals with a question of growing importance. It contains a full analysis and description of a local election (1904) in London, and sums up that "there is no reality in our system of popular representation in local government. We hear the voice of political clubs and coteries, of churches and chapels, and of late especially the voice of a small but well-organised socialist party. The voice of the people is conspicuously silent; about one-eighth of the electorate only voted, and that under great pressure. . . . The system has got into a rut out of which it is essential that it should be extricated."

In addition to the papers recording the author's own experience, there are others which treat of the history of Poor Relief both in ancient and in modern times, and others, again, which describe many of our numerous modern experiments which are not yet relegated to history. There are also criticisms of both the Majority and Minority Reports of the last Poor Law Commission, neither of which was wholly approved by him.

H. BOSANQUET

Wealth: Its Production and Distribution. By Prof. A. W. KIRKALDY, M.A. (Methuen and Co. 1920. Pp. 147. Price 5*s*. net.)

PROFESSOR KIRKALDY aspires in this volume to explain "in a lucid and popular manner the fundamental facts in the production of wealth, and the causes which regulate its distribution." In a word, he succeeds; though (as is usual with such volumes) the treatment of production will probably give more satisfaction

to the uneconomic mind than the pages which deal with distribution. The author very cogently points out that all the fundamental problems of economics are met with at an early stage of human civilisation; and he believes (partly on the optimistic ground that "experience teaches that this is a well-ordered world") that behind our economic activities, early and late, lie certain "natural laws." Thus all production is controlled by a Law of Substitution. The law makes the producer juggle with the three factors of production until he effects the most satisfactory combination. To each of these factors Professor Kirkaldy devotes one chapter, describing what it does and how it is paid. Land earns rent which is the excess product traceable to superior quality. The author succeeds in presenting what is true in the theory of rent without giving it as ludicrous an appearance as it only too often wears in economic text-books; though he does once slip (page 33) into talking of "doses" of capital and labour, without previous explanation of a term which offers an easy target for the ridicule of the "practical" man. In his chapter on "Labour," Professor Kirkaldy explodes the wages fund theory, explains that greater production is the only source of higher wages, and that real wages are different from nominal wages; and he has a few pages on the Wages System and the different methods of remuneration exhibited by this system. He suggests that we may be approaching the time when the payment of labour will be made in the lump to the unions concerned, and distributed by them on their own principles to individual workers. What the book has to say about capital may be summed up in its closing sentence: "The wealthy man who invests his money rightly benefits the whole community, and he has a right to expect a return for the benefits conferred."

There is no doubt that the book is excellent of its kind. It is a remarkably clear account of the simplest economic truths, and it is well furnished with concrete illustrations. But for all that it makes the reader sigh. Professor Kirkaldy is not (apparently) writing for the nursery; but it is deplorable to think that anybody of years of discretion needs to be told matters so elementary. Do we really need a Law of Substitution to explain that you generally do a thing by the best method known to you?

On page 77 "agreed" looks like a misprint for "argued."

BARBARA WOOTTON

Economics. By JAMES CUNNISON, M.A. (London: Methuen and Co., Ltd. 1920. Pp. xv+168.)

IT is not the function of a text-book to be original. Accordingly, there is little in this book that cannot be found elsewhere. But that is not to say that what it contains is elsewhere as conveniently put. In the note on further reading at the end of the volume, the author states uncompromisingly that "Marshall's *Principles of Economics* must be read." His own book does, in fact, provide a readable, boiled-down version of the contents of that standard work. Mr. Cunnison writes of the production, distribution and exchange of wealth. Wealth is created by factors of production, known as land, labour and capital, of which the two last-mentioned are themselves products, with Malthusian problems and psychological problems attending their production. These factors are organised for the business of wealth-making in a variety of different forms, ranging from the one-man business to the Trust. When produced, wealth must be exchanged; and this process, Mr. Cunnison explains, takes place in accordance with relative values. From value we turn naturally to prices, and learn how these are affected by "(*a*) the supply of gold, (*b*) the amount of other wealth, (*c*) the amount of work the gold has to do." Prices, however, are not only a domestic affair. International price-levels are bound together by the working of the foreign exchanges. It is a pity that the present discontents of money and the exchanges are dismissed in two short paragraphs, and those too between brackets. Mr. Cunnison leads us to infer that there is not much amiss with an identification of money and the gold standard. Students of economics must necessarily be nourished to a large extent on pre-war treatises. They are apt in consequence to assume with sublime academicism that the conditions described in those volumes are as eternal as the principles predicated of them. For this reason we should be grateful if post-war authors would not write past history in the present tense.

In his treatment of rent and of distribution in general the author is broadly Ricardian, though he does not ignore more recent contributions to the subject. He believes that the individualistic system of industry, which is the ultimate assumption of the classical theory of distribution, has a future before it; and he sees confirmation of this opinion in the rapidity with which we are shaking the dust of war-time Socialism from our feet.

As an extremely lucid exposition of classical economic theory,

this book will be a very useful addition to our shelves. We could have wished, however, that a volume, which describes itself simply as *Economics*, contained a little more fact to bolster up its theory. The economist is rightly sensitive to the charge of unreality.

BARBARA WOOTTON

English Political Theory. By IVOR BROWN, B.A. (Methuen and Co. 1920. Pp. 177. Price 5s. 6d. net.)

THIS volume sketches the development of English political theory from the ecclesiastical conventional theory of the Middle Ages to the latest doctrines of "functional democracy." It is written from the point of view of one to whom the modern territorial State is Leviathan in his most revolting form. One does not need to read very far to acquire a very definite mental picture of the author and his opinions, and one need not read further than the first page to learn that the book is brilliantly written, and abounds in epigrammatic phrases to which the reader is constantly impelled to turn back that he may ponder their meaning further. While he feels the charm of mediævalism, the author rebels against Tudor nationalism; and yet he is tender towards Hobbes and even believes that, "had we been better Hobbesians and taken his theory of sovereignty and his plea for unity to heart, there might have been no European War." The great journey of thought from the Law of Nature to absolutism, and from absolutism back to natural rights, is vividly described. As might be expected, the author is bitter in his denunciation of Burke (but tolerant enough to admit that "as a conservative pamphleteer Burke's eminence cannot be disputed"). He is, more unexpectedly, loud in his admiration of Benthamism, for all its wearisome prosing. But the key to Mr. Brown's attitude towards utilitarianism, as, indeed, to his attitude towards any political theory, lies in his firm conviction that fine phrases are but fine phrases, and deadly in their finery. There is no such thing as the welfare of the State as distinct from the welfare of Tom, Dick, and Harry. The book concludes with an appeal for the disruption of the State from within by greater freedom of association on "functional" lines, and from without by the spread of internationalism.

The author's opinions are fashionable to-day; but the fashion has not yet gone too far to be anything but a healthy reaction from the "tyranny of institutions" which has thrived under the blessing of Hegel and the idealists with their transcendental

chatter. Mr. Brown should, however, be careful lest in presenting these opinions he allow his gifts to be his own undoing. Thus on page 3 the phrase "a thousand 'ares' do not make a single 'ought'" is striking enough. But when it has been repeated (in one form or another) four times in the course of the book, we begin to think that all is not gold that glitters.

On page 91 "ever" is misprinted for "never."

BARBARA WOOTTON

The Economic History of Ireland in the Eighteenth Century. By GEORGE O'BRIEN. (Dublin and London: Maunsel and Co. Pp. viii + 446.)

THE study of Irish history on the economic side appears to be passing into a new and more scientific phase. Up to recent time the treatment of economic conditions by Irish historians was of a superficial and unsatisfactory character. Lecky's failure in this respect is significant; he hardly ever gets beyond the merest external sketch of the economic situation, and, where Lecky is found wanting, little can be expected from the many partisan writers who have discussed questions of industry and trade. If J. E. Cairnes had been able to complete his *Fragments on Ireland*, he would have given a luminous and philosophic interpretation of Irish economic development that would have ranked with his *Slave Power* and been invaluable to historians and economists. Unfortunately this was not to be. It is only in the present century that we get such an impartial study of one section of history as that of Miss Murray. The establishment of a Faculty of Commerce in the National University of Ireland has supplied a centre for special research into the economic aspects of Irish life, and the valuable book before us is one of the earliest products of this school.

The subject of Dr. O'Brien's work is the eighteenth century taken in its economic aspects. After an unnecessary apology for trespassing on the field occupied by Lecky and Froude, he gives ample justification by his very careful and thorough examination of the economic phenomena of this troubled period. Beginning with the people, he passes on to the difficult and intricate problems of the land. In natural sequence the history of trade and industry is examined, and this is followed by a study of public finance, taken with a very wide meaning. The concluding section is devoted to a consideration of the political influences that have played so large a part in determining the course of Irish economic life. Though some improvement in the grouping of

the several topics might be suggested, the plan of arrangement is convenient and easily followed. Dr. O'Brien's study of the available material has been very full and careful. He has gone over the many writings of a fugitive character in which the questions of the day were treated and has extracted their substance in order to produce a clear and intelligible picture of the Ireland of his selected period.

That picture is, on the whole, a melancholy one. From the opening of the century down to the beginning of its last quarter the oppressive *régime* of the penal laws and the accompanying grievances of land tenure were in operation. So were the hampering trade restrictions. A brighter time comes with the introduction of the "free-trade" gained by political action, but this winds up with the grave economic disturbances that accompanied the Rebellion of 1798.

This section of economic history is one which so plainly belongs to the division of social pathology that we naturally ask the inquirer to give a diagnosis of the disease that has affected the society. Dr. O'Brien's judgment on this issue is emphatic. After his review of the several aspects of Irish economy, and before passing to the specially political forces, he tells us that: "The principal causes which tended to impede Irish prosperity, and to prevent the country from progressing along the lines of normal development, may be briefly summed up as follows: (1) The restraints on Irish trade and the consequent ruin of manufacturing industry; (2) the evil land system; (3) the penal laws; (4) absenteeism; and (5) the political dependence of the Irish Parliament. These causes were not independent, but inter-related."

Before dealing with any of the detailed points which support this summary statement, we may consider whether the order given above indicates the relative importance of the several evil influences enumerated. It appears to us that the whole weight of evidence leads directly to the conclusion that the one great outstanding evil was the system of the penal laws against the Catholics. This, it may be noted, was the view of both Adam Smith and Arthur Young. The former supported a union with Great Britain on the ground that by it Ireland would gain not only freedom of trade, but "other advantages much more important," viz., "deliverance from an aristocracy, founded in the most odious of all distinctions, those of religious and political prejudices" (*Wealth of Nations*, II., 430).

Young waxes eloquent on this point. "Surely the gentlemen of Ireland, when they complain of restricted commerce and the

remittance of the rentals of the absentees to England, cannot be thought serious in lamenting the situation of their country while they continue wedded to that internal ruin which is the work of their own hands. Complain not of restrictions while you yourselves enforce the most enormous restriction; and what are the body of absentees when compared with the absence of industry and wealth from the immense mass of two millions of subjects. . . . Both these evils, great and acknowledged as they are, are trifles when compared with the poverty and debility which results from the oppression of the Roman Catholics" (*Tour in Ireland*, II., 68). No interpretation of Irish history during the last two centuries can be of real value unless it takes into full account what Cairnes described as "the truly Egyptian tyranny under which the Irish groaned."

Coming in a lower rank, though very serious in its effects, was the system of land tenure, modelled in seeming resemblance to that of England, but applied under far different circumstances and with a very different historical background. Competent legal opinion has noted the absence of copyhold tenures in Ireland, and this of itself conveys an instructive lesson. It shows that there was no slow growth of custom to consolidate and adjust the claims of the various sections of the agricultural community. The era of confiscations, as the seventeenth century has been called, had put the power of the landowning class in sharp contrast to the helpless state of the occupiers. Reinforced by the penal code, the imported English land law checked the progress of agriculture and contributed powerfully to the lowering of the labourer's efficiency, as well as retarding the growth of capital which depends so much on an established sentiment of security. The harassing restrictions on trade, the alienation of the wealthier nobility, and the control of the Irish government in England's interest are light in the balance when weighed against the penal laws and the land system. One great service of the book before us is the way in which it gives full and adequate material for forming a correct judgment on the many disputable points of this period of economic history. The detailed accounts of the penal statutes, of the land legislation and the commercial restrictions, while they somewhat detract from the liveliness of the book, increase its value to the real student.

It is only possible to notice a few of the special matters of interest where the reader may hesitate in accepting the author's view. One is presented in the treatment of the Irish land tenures. Dr. O'Brien seems to us to fail to realise the unique-

ness—so to speak—of the Irish system. It in essence consisted in applying conceptions appropriate to an advanced society to one that had not reached much beyond the mediæval stage. The cottier was on the whole worse off than the villein, but his status was altogether different. Nothing would more serve to throw fresh light on the Irish agricultural economy of the century than a careful study of the real operation of the cottier system and its relations to the tenancies of more secure character. It should also be noted that in economic discussions a much wider application is given to the term "cottier," so as to include "all peasant farmers whose rents are determined by competition" (Mill, Book II., Chap. ix.).

One curious omission is the absence of any reference to the system of "tenant-right" that was at least coming into being in Ulster. Our author's opinion as to the difficulty of obtaining evidence on the origin of such a useful form of tenure would be very interesting.

In his treatment of the course of trade and industry Dr. O'Brien has first supplied an account of the condition during the long time of restriction, and has then proceeded to show how, in his judgment, the establishment of Parliamentary independence produced a complete change and initiated a period of remarkable prosperity. The evidence as to the progress of the several industries is effectively marshalled and supported by well-arranged tables. In some cases there may be a little hesitation in implicitly accepting this cheerful exposition. Thus we feel that Dr. O'Brien has given too favourable a picture of the growth of the cotton trade (pp. 275–77). "The principal seat of the industry was at Belfast, where in the year 1800 it gave employment to 27,000 people. . . . In 1802 the cotton manufacture supported 600,000 people." When we remember that in 1813 the population of Belfast was *only* 27,832 (*p*. 373) and that in 1800 the number of looms in Ireland was 20,500 (p. 277), we know that a drastic revision of the estimate is necessary.

More important than the details of special industries is the *general question as to the position of Ireland in relation to the* series of changes to which Toynbee gave the serviceable, though in some respects misleading, title of "The Industrial Revolution." On this subject Dr. O'Brien takes a decided stand. In opposition to the view propounded by the Irish Labour leader, James Connolly, he maintains that the changes in industrial organisation and equipment that were so marked in England did not speedily extend to Ireland, from which it follows that the

growth of Irish industry was not—as Connolly argued—a result of the Industrial Revolution, but was altogether due to the beneficent action of Grattan's Parliament. It seems clear that on the particular issue of the existence of anything approaching a "Revolution" in industry the answer must be, in current phrase, in the negative. The truth is that the Industrial Revolution of Toynbee's conception was, in the eighteenth century, confined to England. A reference to Levasseur's great work will show that it did not extend to France. In fact, for countries outside England, the nineteenth century was the time of industrial change. It is, moreover, true that the necessary conditions for such a movement did not exist in Ireland, either on the industrial or the agrarian side of economic life. This is one of the reasons for a separate treatment of Irish economic history. The attempts of the compilers of the manuals of English economic history to work in a chapter on Ireland are simply ludicrous.

The section on "Public Finance," or, as Dr. O'Brien more fitly styles it in his Introduction, "Public Wealth," affords much information on money, banking and means of transport, as well as on revenue and expenditure. The comparative freedom from tax burdens that Ireland enjoyed in the eighteenth century is clearly shown. "On the whole the Irish had little to complain of in the way of taxation. The injustices which distinguished Irish finance did not appertain to revenue, but to expenditure. We may invert Froude's epigram, and say that, if the Government cost little, it did nothing" (p. 314). Corruption was the great fault of the Irish administration all through the century. This failing was made easier to indulge in, owing to the less-developed character of Irish financial organisation.

As is only natural, the closing chapter is devoted to an account of the Union with Great Britain, but the author justly points out that in the carrying of this measure economic considerations were subordinate to political ones, and that the economic effects of the Union belong to the history of the next century.

As according to an old doctrine a reviewer is bound to have some complaint to make, we may ask why Dr. O'Brien has not followed the good example set by Miss Murray and added a bibliography, in which Pocock's *Tour* should have found a place. He might even have done better by supplying an index, which is particularly needed in a book of this kind. There is also the statement that Arthur Young was "a keen and successful farmer" which is hardly in keeping with what we are told of his monetary difficulties.

Our author claims that he "has endeavoured to treat the subject of this book in an impartial and detached manner, and has striven to describe the economic conditions of Ireland without obtruding his own opinions or prejudices; above all, he has sought to avoid making use of an economic study to mask a political diatribe" (p. 436). In this laudable endeavour he has, it can be truly said, completely succeeded.

C. F. BASTABLE

Outlines of the Industrial History of Ireland. By JOHN F. BURKE, D.Sc. (Dublin and Belfast: Fallon Brothers. Pp. xvi + 282.)

THIS work is evidently the result of the attention now being given to the subject of economic history in University courses and to some extent in the higher classes of schools. There has been quite an outflow of small manuals dealing with English history on the social and economic side. The same feature is now appearing in Ireland. Such books can only be useful when based on the more elaborate inquiries of original investigators.

Without the aid of the labours of Thorold Rogers, Cunningham and Ashley, the English popular manual would be almost impossible. Unfortunately, in Ireland this indispensable basis is lacking, and therefore great allowance must be made for the writer of such a work as the one before us. Looked at in this way, Mr. Burke may be regarded as having been fairly successful. In a series of chapters he traces the various phases of the industrial history of Ireland from the condition "under the Brehon Laws" to the state of things in 1850. It is obvious that the treatment must be a little uneven. It would take a committee of experts in early legal and social conditions to appraise the value of the summary matter given in the first chapter. In the same way, the twenty pages devoted to the four centuries succeeding the Norman invasion contain propositions that naturally give rise to question. How far, *e.g.*, is it true that "from the thirteenth to the seventeenth centuries the industries which Ireland had developed under the Brehon Laws continued to expand"? (p. 20). A great deal of the evidence as to the condition in the fifteenth and sixteenth centuries is certainly to a very different purport. The dogmatic statement may admit of explanation and justification, but there is no room for this in a short handbook.

The later chapters have a better-prepared ground, and Mr. Burke has managed to bring together a considerable body of facts

respecting the industry, commerce and industrial organisation of Ireland in the period from the Plantation of Ulster down to the crisis of the famine of 1846. The disturbances and confiscations of the seventeenth, the repressive measures of the eighteenth, and the economic changes of the earlier nineteenth century are sketched in some detail. One criticism to which the writer lays himself open is that of over-liberality in bestrewing his text with figures. Thus the matter contained in the sections on the Provision Trade (pp. 123–5, 187–9) is hardly readable, and certainly impossible to remember, though it might serve the evil purpose of being used as a test of "memorising," such as once did exist in Irish Intermediate examinations. The placing of such figures in suitable tables would have relieved the text and decidedly improved the book.

A large number of interesting questions are raised in the course of the history. Such are : (1) The interpretation of the returns to Irish trade. Mr. Burke seems to attach undue importance to the "balance of trade"; but the curious discrepancies between the English and Irish custom-house figures are instructive as to the difficulty of reaching the truth.

Again, (2) there is the question of the origin of the Irish trade unions about which a good deal of doubt still exists. The hostility of O'Connell to the demands of the unions which led to violent attacks on him is noted, without, however, any attempt at interpreting the real condition.

In any re-issue of this work the author might consider the advisability of further breaking up the sections and introducing marginal notes. Some indication of the material used in each chapter would also be an improvement. The student, when beginning the reading of economic history, wants all the aid that he can get.

C. F. Bastable

A Social and Industrial History of England, 1815–1918. By J. F. Rees, Lecturer on Economic History in Edinburgh University. (London : Methuen and Co. 1920. Pp. 197. *5s.*)

The Making of Modern England. By Gilbert Slater, Principal of Ruskin College, Oxford. (London : Constable and Co. 1919. Pp. 308. *7s. 6d.*)

The main theme of both these books is economic evolution during the last 150 years—a subject and a period which have received in the past small consideration in public schools. A precise knowledge of the gruesome details concerning Jenkins'

Ear affords little consolation to the young economist when challenged to uphold or refute Dean Inge's statement[1] with regard to our present treatment at the hands of the miner and bricklayer, that "nothing more scandalous, and nothing as ruinous, was ever done by the captains of industry in the days before the Factory Acts."

To answer, or to indicate answers to, questions such as this and so to help to fill a gap in one of the most important sections of our history is the object of these books.

Mr. Rees' "main purpose is to provide, within as small a compass as possible, the historical background necessary for the study of modern industrial and social questions." These words from his Preface are rather more modest than the somewhat grandiose title might lead one to expect, but they constitute an ambitious task for such a small compass. Economic history is peculiarly difficult to compress, because few, if any, of its phases seem to have any clearly-defined starting-point or ending; there is generally some indispensable long-drawn-out preliminary leading up to the big change. Thus Mr. Rees devotes his first two chapters to a compact yet comprehensive aerial survey of events before 1815. If the supplementary chapter on the recent war be excluded, there remain but 130 small pages of large type to justify his title, and into this space Mr. Rees has shepherded a large number of facts and events—social, industrial, and even financial. There is little time for discussion or expansion, and the inevitable result is that just as the reader is getting interested in a point, he is hurried on to the next. This is very much to be regretted, as Mr. Rees is an able writer. The ground covered includes Factory Regulation, Trade Unions, Poor Law, Trade Policy, and Municipal Government; their mutual relations are well shown. The effect, however, on the beginner is somewhat confusing, and the main value of the book to the student rests on the fact that it is compact and accurate and therefore suitable for revision purposes.

Though published in 1919, with no hint of a previous edition, Mr. Slater's book was written two years before the war. The date 1912 in his Preface is the only indication on the surface that the matter is not up to the date of publication. That is, to say the least of it, misleading, and should be remedied.

With this limitation the book may be strongly recommended as one of the books necessary for the beginner in the study of economic history, and Mr. Slater has certainly earned "the most

[1] *Times*, Sept. 4, 1920.

modest degree of success" with which he says he would be content. He aims at setting out in simple language "those facts . . . which it is most important for English men and women to know." He appreciated, in 1912, that, "for the citizen, historical study . . . is an imperative duty." How much more so is it to-day.

The first six chapters cover the period up to the first Reform Bill. The histories of the rural and urban workers are traced from early times to the distress during the "Peace without a Parallel." Enclosures, Poor Law, and Factory Conditions are very well discussed. "The Firstfruits of Reform" introduces another series of good chapters. Those on the Poor Law, Municipal Reform, and Factory Legislation are excellent, as is "The Progress of the Industrial Revolution during the Forty Years' Peace." The sub-heading "Railway Regulation" has some interesting points, and "Transport and Manufacture" is worth reading twice. In it the revolution in transportation is stressed, and rightly so. The engineering industries "have given us a new aristocracy of labour to take the place of the hand-loom weavers" (133).

The Labour Movement from 1825 to 1855, Free Trade, Public Health, and Education are worthy of the separate chapters they command, and the last two contain material that is not to be found so conveniently elsewhere. "Industry and the Worker from 1846 to 1879" paves the way for a very interesting and suggestive chapter (XX.) on the effects of American and German influence on British industry. One cannot help thinking of a series of well-written extracts from provincial guide-books when reading the chapter on "Municipal Life," but that does not make the facts any less valuable or impressive. Few appreciate that "there is no city in Great Britain which has a greater variety of municipal activities than Glasgow" (216). Perhaps Necessity . . .

In addition to a sketch of the Labour movement in recent years, the last thirty pages contain an interesting *résumé* of pre-war opinion on the Industrial System, the Constitution, and Imperialism. There is a hint of the need for a League of Nations. A chronological summary and four charts on prices and population will be found useful. The index is inadequate in each of these books. The author has endeavoured to keep a fair balance between Individualism and Collectivism, but a sympathetic inclination is distinctly noticeable towards the latter in several passages.

For the student history consists largely in material selected

judiciously and arranged in illuminating fashion. To measure the degree of importance which should be attached to any particular event—that is one of the student's chief difficulties, and one in which he needs most guidance.

Perhaps, after all, Mr. Lytton Strachey is right: "The history of the Victorian Age will never be written; we know too much about it."

J. H. MANN

The Good Government of Glamorgan: The Case for County Borough Areas. By J. T. MARDY JONES. (Published by J. T. Mardy Jones, Pontypridd. 1*s.* 3*d.*)

THIS book bears upon a wider subject than its title indicates. A large proportion of the municipalities are finding their existing areas too restricted for their modern needs. The town-planning Acts, the national housing scheme, the supervision of dairies and slaughter-houses, the provision of allotments, the preservation of open spaces around growing towns, the control of the transport for those living at a distance from their work, the general expansion of towns into the country—all these factors are compelling municipalities to seek an extension of their boundaries. The difficulties created by this movement have been brought most prominently to public notice by the conflicts between the different local authorities in the West Riding. Bradford, Halifax, and Wakefield have proposals for extension. Leeds proposes to more than double its area. Sheffield proposes to almost quadruple itself, and incidentally to absorb the county borough of Rotherham. Rotherham has similar proposals of its own. For each such scheme by itself a strong case can be presented, but, as the recent action of the Ministry of Health has shown, no great progress is possible until the problem presented by the administrative county has been answered. In the West Riding, for example, the acceptance of all the proposals for the extension of county borough areas would diminish the rateable value of the administrative county by one-fourth and leave it like a sponge made up of holes. The question has received less general notice, but is as acute in Glamorganshire. There, if the proposals of the most ambitious advocates of extension were carried out, the administrative county would lose 90 per cent. of its population and consist of a number of isolated strips, whose only bond of union would be common officials. The subject is further complicated by the recriminations between different municipalities accusing each other of wishing to "grab" the most valuable rating areas. Here Mr. Mardy Jones enters the field with a proposal both bold and simple.

It is that the difficulty of the administrative county should be solved by its disappearance. The county would be divided up into eight or ten county boroughs which, by an agreed scheme, sharing out the good as well as the poor rating areas, would absorb the whole of Glamorganshire. The case is argued with great local knowledge and embellished with attractive suggestions, such as that sweltering industrial municipalities like Swansea and the Rhondda should have their "place in the sun" on the Bristol Channel and include a seaside pleasure resort. Glamorganshire, with its divisions into clearly demarcated valleys, lends itself to Mr. Mardy Jones' proposal more easily than any other county, and the need for smaller units of local government than county boroughs is less than in more rural counties. The discussion which his proposal has raised will be useful for any such wider inquiry as the West Riding County Council requested.

H. B. LEES-SMITH

Valuta und Finanznot in Deutschland (The Exchanges and Financial Distress in Germany). By JULIUS WOLF. (Stuttgart. 1920.)

IN this paper Professor Wolf, of the Technical High School at Charlottenburg, points out that in 1920 goods in Germany cost twelve or thirteen times as much as they did at the beginning of the war. Abroad the value of German currency has fallen still lower. As gold itself has lost approximately half its purchasing power, the price of foreign bills would thus amount to one-sixth or one-seventh of their original value; actually the price has fallen to one-tenth.

This depreciation of the currency is felt by different classes in varying degrees. While the prices of commodities in Germany have risen to as much as thirteen times their pre-war standard, workmen are receiving wages from eight to ten times only as high as formerly. The salaries of clerks have risen a little less, and officials have to be content with a still smaller rise. The income of the highest salaried posts has been trebled, and a great many writers, artists, private teachers and scholars would be glad of even this increase. Worst of all, however, is the position of those capitalists who invested their capital in bonds, mortgages, or analogous securities, their revenues having remained nominally unchanged.

The depreciation of the currency was accompanied by a quite illusory industrial prosperity, large nominal profits being realised at the expense of real wealth. Further, the depreciation of the

currency often caused depression in trade in consequence of the inevitable fluctuations in the prices of foreign exchanges.

According to Professor Wolf, the main causes of the depreciation of German currency are to be found, first, in the transactions of speculators; secondly, in the insatiable demand of Germany for foreign goods, especially foodstuffs and raw materials, of which she was deprived during the blockade and now needs more than ever; and, lastly, in so-called inflation, *i.e.*, an unscrupulous over-issue of bank-notes. Foreign loans might enable the German Republic to restore the equilibrium in her foreign trade, but the author apprehends that in a very short time her exports would again be unequal to her imports, since it is impossible for the next few years to check or diminish inflation; consequently prices must rise, and accordingly prevent commodities being easily sold abroad. Public expenditure in 1920 was more than three times the amount of public revenue: taxes, originally intended to diminish the currency, do not even cover an adequate part of the deficit in the Budget.

The gigantic proportions of public expenditure are to be accounted for primarily by the liquidation of a war which went beyond the strength of the German nation, and by the financial burdens of the Peace Treaty. The heaviest of these burdens at present is the compensation of the former owners of ships, goods and assets abroad, which were retained and confiscated by the Allied and Associated Powers. To this must be added the large sums spent on the occupation of the Rhineland, and on those of the Reparation claims which have already been discharged.

The greatest obstacle to economic recovery, however, is the weakness of the Government. It cannot reduce its expenditure to the extent which its revenues demand; in order to avoid rebellion, it has to respect the wishes of the masses and officials. Thus the German Government has no alternative but to throw large sums of new bank-notes on the market to pay for what has to be paid. The author therefore comes to the conclusion that the price of German bills of exchange has not by any means as yet touched bottom.

E. SCHWIEDLAND

Die Anfänge des menschlichen Gemeinschaftslebens (The Earliest Forms of Human Society). By DR. W. KOPPERS. (*M. Gladbach. 1921. Volksverein. Pp. 192.*)

IN my own *Political Economy* (*Volkswirtschaftslehre*, 2nd ed., Vienna, 1920, Wila) I attempted (Chap. II.) to give a short account of the origin and the primitive forms of economic life.

I was therefore particularly glad to find such an eminent ethnologist as Dr. Koppers, the missionary, and editor of the well-known review, *Anthropos*, dealing with "the earliest forms of human society in the light of modern ethnology." Of the seven lectures which his book comprises, some deal with the origin of economics and the first forms of property, others with primitive families and primitive states, others again with the beginnings of religion and morality as well as personal and material culture from an ethnological point of view. The matter of this book is equally historical, critical and positive, and it states, in short and comprehensive form, the results of the most recent researches of the ethnological school of Ratzel, Frobenius, Graebner, Ankermann, Foy and W. Schmidt. This new, positive, historically-descriptive method differs profoundly from that of the philosophical sociologists, whose imagination played far too large a part in their work. This treatise contains, besides theoretic truths of considerable importance, statements of hard fact and information of the highest practical value.

E. SCHWIEDLAND

Le Mal Social et ses Remèdes (The Social Evil and its Remedies). By RICHARD BONDAM. (Paris: Société Mutuelle d'Édition. 1920. Pp. 380.)

AFTER making a comprehensive criticism of present-day civilisation, Mr. Bondam, a Dutch scholar, advocates a new theory of hereditary succession. In his judgment, everybody within a given territory should receive an equal share of money out of the aggregate inherited wealth of each year. This would constitute his portion of the sum-total of bequests. To avoid unfair equalisation—since with the same sum of money, owing to differences in the cost of living, a peasant is very much better off than a townsman—the author proposes a distribution over small districts, with about 200,000 inhabitants in each. Within these districts there should be equal diffusion of the given inheritances. At the end of each year every adult person is at liberty to dispose of his total, the share of minors to remain in a public bank until they come of age. From the adoption of this system the author expects many beneficial social, economic and political consequences, due to the resultant equalisation of economic opportunities for everybody.

E. SCHWIEDLAND

Der Nationalismus Westeuropas (The Nationalism of Western Europe). By WALDEMAR MITSCHERLICH. (Leipzig: Hirschfeld. 1920. Pp. 373.)

PROFESSOR MITSCHERLICH, the present Professor of Economics at the University of Breslau, traces in vast outline the development of the phenomenon of nationalism, which is so profound and dominant an influence in our own time. In this work the author initiates a special method of sociological research: he rejects the theory of *evolution*—according to which social life steadily evolves, the present being an organic development of the past. His own theory of *pluralism* regards every social phenomenon as something isolated and distinct in itself, arising under special conditions, and developing along its own lines. This theory of a plurality suggests a fresh point of view from which to approach and investigate every human institution.

In the Middle Ages the individualistic nationalist idea was utterly foreign to the structure and essence of society. A stage of early nationalism first began when the structure of society and of the State had undergone fundamental changes. Later on the modern State—based on conceptions of unity and law—together with a growing individualism, laid the foundations of nationalism, which gained importance as a creative idea only towards the end of the eighteenth century. In the nationalistic period proper which followed we can trace the extension and intensification of nationalism in its relations to political and economic life. In our own day ideas and tendencies are finally emerging which vie with nationalism, and which make deeper claims on States and nations. Beside Imperialism there is growing up a *State-Unionism*, which aims at creating coalescence between sovereign States which, without giving up their individuality and complete self-dependence, shall form a new political structure. The powerful influence of imperialistic States and the crying need for economically self-supporting State-unions may promote the further development of such groups on lines similar to those advocated in Mr. Keynes' treatise on the Economic Consequences of the Peace.

E. SCHWIEDLAND

Die Reklame (Advertisement). By VICTOR MATAJA. Third enlarged edition. (Leipzig: Duncker und Humblot. 1920.)

ADVERTISEMENT is not only a business method, but also a psychological art. The knowledge and practice of it is of growing

importance, and an especially wide field has opened for it in its extended application to political purposes.

This book by Professor Mataja, the President of the Austrian Statistical Bureau, deals with the subject from a scientific point of view. He expounds and judges with impartiality the forms and effects of every kind of advertisement. He inquires into its importance as a means of education and of enlightenment, examines its economic value and results, and describes its special functions and applications.

E. SCHWIEDLAND

NOTES AND MEMORANDA

Measurement of Inequality of Incomes

I have read with the greatest interest the article by Mr. Hugh Dalton ("The Measurement of the Inequality of Incomes") which appeared in the September number of this Journal, and I admire the simplicity and ease of the method which he suggests for measuring the inequality of economic welfare, on the hypothesis that the economic welfare of different persons is additive. The methods of Italian writers, which are explained by Mr. Dalton, are not, as a matter of fact, comparable to his own, inasmuch as their purpose is to estimate, not the inequality of economic welfare, but the inequality of incomes and wealth, independently of all hypotheses as to the functional relations between these quantities and economic welfare or as to the additive character of the economic welfare of individuals. The same methods are, on the other hand, applicable not only to incomes and wealth, but to all other quantitative characteristics (economic, demographic, anatomical or physiological), and they have, in fact, been actually employed to obtain a rough estimate of the various degrees of inequality which the distribution of these characteristics presents.

Mr. Dalton explains these methods with precision and brevity, and Italian writers must be most grateful to him for having directed the attention of English economists to the subject. Perhaps, however—as a supplement to Mr. Dalton's article—I may be permitted to draw the attention of readers of the Economic Journal to certain papers, a perusal of which, in my opinion, is necessary to enable one to form an exact idea of the applicability and character of the methods in question. These are: E. Czuber, "Beitrag zur Theorie statistischer Reihen," in *Versicherungswissenschaftlichen Mitteilungen*, Neue Folge, Vol. IX., p. 101 *et seq.*, Vienna, 1914; C. Gini, "Sulla misura della concentrazione e della variabilità dei caratteri," in the *Transactions of the Real Istituto Veneto di Scienze, Lettere ed Arti*, Vol. LIII., Part ii., p. 1203 *et seq.*, Venice, 1914; G. Pietra, "Delle relazioni tra gli indici di variabilità," in the *Transactions of the Real Istituto Veneto di Scienze, Lettere ed Arti*, Vol. LIV., Part ii., Venice, 1915; Paper I., p. 775 *et seq.*; Paper II., p. 793 *et seq.* Probably these papers have escaped Mr. Dalton's attention owing to the difficulty of access to the publications in which they appeared.

Mr. Dalton rightly attaches importance to the degree of laboriousness of the various methods, and to their applicability to such imperfect statistics of income as we possess. It may perhaps be noted here that Professor Czuber has suggested (p. 126 *et seq.*) and has worked out a procedure for the calculation of the mean difference which is simpler than the one I used in *Variabilità e Mutabilità* (compare also on this question Pietra, "Sulla teoria della variabilità nelle serie statistiche," in the *Rivista Italiana di Sociologia*, May–August, 1915, p. 417); and, if I am not mistaken, a still more rapid procedure is described in my paper, "Sulla misura della concentrazione" (p. 1210 *et seq.*). In this paper, moreover, the calculation of the mean difference in the case of imperfect statistics[1] is examined in detail, and suitable correction coefficients are given (pp. 1211–1223). On the other hand, the calculation of the mean difference can often be made advantageously, in the case of very imperfect statistics, by a graphical method based on the area (area of concentration) contained by the curve of concentration and the line of equal distribution. Many subsequent applications of this procedure have convinced me of its great practical utility.

In this same paper (pp. 1237–1238) the relation between the mean difference and the area of concentration (to which Mr. Dalton alludes on p. 354) is established, and also the relation (to which Mr. Dalton refers on p. 360) between the mean difference and the reciprocal of Pareto's α when the distribution follows Pareto's curve is given (p. 1244; *cf.* also on this point, *Variabilità e Mutabilità*, pp. 60–63). From these relations, it is easy to corroborate the further relations between our δ and the area of concentration which Mr. Dalton establishes on p. 360.

I should like, therefore, to direct the attention of readers of the Economic Journal more particularly to the two excellent papers of Dr. Pietra. In the first of these the relations are brought to light which exist between the mean deviation from the arithmetic mean, the mean deviation from the median, and the area of concentration.[2]

In the second paper the ranges of variation of the relative

[1] In my article I am really concerned with the determination not of the mean difference but of the *concentration ratio*, which is the quotient of the mean difference by twice the arithmetic mean; but what we say of one will apply equally to the other.

[2] *N.B.*—On pp. 784–786, the proof that distributions having a concentration curve, to which a parallel to the line of equal distribution is tangential, have all the same relative mean deviation. This proof Mr. Dalton, on p. 354, mistakenly attributes to Ricci. Dr. Pietra had already called attention to the possibility of such a confusion. Compare "Recenti Pubblicazioni di Metodologia Statistica," in the *Rivista Italiana di Sociologia*, March-June, 1917, pp. 312–317.

mean difference, of the relative mean deviation from the arithmetic mean, of the relative mean deviation from the median, and of the relative standard deviation are established, the causes of discrepancy between these various indices of variability are examined, and the limits are fixed within which these discrepancies can be verified.

R. Università di Padova, Gabinetto di Statistica.

CORRADO GINI

SOUTH AFRICAN CURRENCY

PROFESSOR CANNAN, in his article on "South African Currency" in No. 120 of this JOURNAL, does not, perhaps, do full justice to some of the provisions of the recent Act setting up the new South African Reserve Bank. This Act (the South African Currency and Banking Act, 1920) is closely modelled on the Federal Reserve Act of U.S.A. in all those of its provisions which are designed to be permanent. In so far as the rather chaotic condition of banking in South Africa resembled that of U.S.A. before November, 1914, it must be admitted that the drafters of the new Act were well advised in the system they selected for imitation. In any case, the establishment of a central bank with functions of a nature quite distinct from those of an ordinary commercial bank is an event deserving of more than passing notice, and students of banking would have been interested to have had Professor Cannan's comments thereon.

It is not correct to say, as Professor Cannan does, that the new Reserve Bank has "power to issue unlimited bank-notes against 40 per cent. of gold." As backing for its note issue it is required to maintain a reserve of *not less* than 40 per cent. in gold with the balance in approved bills of exchange. In addition to the reserves needed against the note issue, it must hold in gold a reserve of not less than 40 per cent. of its deposits and other liabilities to the public. These provisions, coupled with the graduated tax imposed on excess circulation in the event of the suspension of the requirements as regards the gold ratio, seem sufficiently drastic to prevent any danger of over-issue. Moreover, if the good example of the Federal Reserve Banks in maintaining reserves far above the minimum required by law is followed, there will be an additional protection. With an ex-Chief Accountant of the Bank of England as Governor, it is probable that the new bank will make every effort to maintain its issue on an unexceptional basis.

Professor Cannan's strictures on the adoption of the extraordinary recommendation of the Select Committee on the Embargo on Export of Specie to discontinue the convertibility of paper into coin will meet with general approval, but the undoing of the harm thus wrought does not seem an insuperable task. The fact that the Central Reserve Bank will ultimately have a monopoly of note issue in the Union, joined with the fairly stringent conditions laid down for the interim issues of the other banks, cannot but impose adequate restraint on the unnecessary creation of paper currency by these institutions. Indeed, Professor Cannan admits this, and expects little difficulty in the South African pound being maintained at the Bradbury level. There are obvious conveniences to South African trade if it can be so maintained, though they are, perhaps, bought at too great a cost by the suspension of convertibility. When the situation comes up again for review before June 30th, 1923 (the date fixed in the Act for the resumption of convertibility), the Governor and Directors of the Reserve Bank ought to be in a position sufficiently strong to enable them to bring pressure to bear on the Legislature in the direction of a sound currency policy.

J. G. SMITH

OFFICIAL PAPERS.

Report on Profit-sharing and Labour Co-partnership in the United Kingdom. 1920. [Cmd. 544.]

As in the Report for 1912, an essential attribute of profit-sharing is the receipt by the workman of a share in the profit fixed in advance; the various modes of participation presenting a variety of cases. As before, co-partnership implies that the worker should accumulate part at least of his share in the business; and there is now added the condition that the worker should acquire some share in the management. The average percentage of bonus on wages is 5.5 per cent. The average amount of bonus is about £5.

Births, Deaths and Marriages in England and Wales. Eighty-second Annual Report of the Registrar-General [Cmd. 1017].

The marriage-rate in 1919 was the highest on record, 19.7 per 1,000, 4.3 above the pre-war decade 1905–1914. Ingenious reasons are suggested for the observed increase in the marriages of boys under twenty, of widows, and of elderly men. The birth-rate, 18.5 per 1,000, was 5.3 below the rate for 1914. A comparison of the ratio between male and female births during (and after) the war with the pre-war ratio leaves no doubt that there has been a material increase in "masculinity." There is exhibited a curious correspondence between the trend of the price-level and the variations in masculinity since 1876. The death-rate in 1919, 13.7 per 1,000, is the lowest on record, excepting 1910 and 1912.

International Labour Office Inquiry into Production. I. Introductory Memorandum. London: Harrison. 1920. Pp. 188.

In accordance with a resolution adopted at the Genoa meeting it is proposed to ascertain the actual facts respecting production and prices throughout the world, to determine the factors which explain the facts, and to deduce practical conclusions. Interesting statistics of the amount of production (absolutely and per head) and of price variations are instructively exhibited. Causes of the observed changes are considered under the heads, Democratisation of Industry, Piecework Rates, Stabilisation of Labour, Improvement of Apparatus, Rates of Exchange, and Raw Materials.

Report on General Revision of Railway Rates and Charges, 1920 [Cmd. 1098].

There should be a new tribunal consisting of three persons who shall determine the classification of goods and the standard rate proper to each class of goods. A standard rate may be composed of a conveyance rate and a charge for stational terminals, when used. The conveyance should be a mileage rate, descending as the distance increases.

Minutes of Evidence taken before the Committee of Enquiry into the Work of the Employment Exchanges [Cmd. 1140].

General Report on the Industrial and Economic Situation of Norway [Cmd. 1145].

CURRENT TOPICS

THE following have been elected to membership of the Royal Economic Society :—

Abrahamson, Miss E.
Ahluwalia, A.
Anderson, R.
Aspiazu, Prof. D. J.
Bagley, J. H. (life).
Banca Italiana di Sconto.
Bardell, A. P.
Basu, Prof. P. M.
Bergson, Jan.
Besant, A. D.
Bruce, Miss N. M. S.
Chamberlain, J. A.
Chandler, H. A. E. (life).
Clark, M.
Cordingley, H.
Coutts, C. R. V.
Cummins, H. H.
Darter Brothers and Co.
Desai, T. M.
Dieckmann, A. (life).
Dowbiggin, H. B. L. (life).
Elderton, W. P.
Foster, B. J.
Garnett, G.
Goldsmith, Miss M.
Griffiths, T. H.
Hardy, C. G.
Hird, N. L.
High, A.
Hobbs, F.
Hubback, Mrs. E. M.
Hutton, W.
Ingold, E. G.
Jameson, R. M.

Johnes, Prof. T. (life).
Johnston, J. G.
Judd, W.
Kahn, A.
Kanakura, E.
Kenchington, C. W.
Kent, F. I. (life).
King, C. S.
Leetham, S.
Litman, S.
McAndrew, H. (life).
McCarnic, C.
McConnel, J. W.
MacDermot, F. C. (life).
McPhail, A.
Marshall, H. J.
Master, R. C.
Mukerji, P. B.
Murchison, Miss A. G.
Murdoch, A. E.
Nelson, A.
Oldham, Miss R., O.B.E.
Owen, E.
Paisley, A.
Patterson, T. H. H.
Peake, E. G.
Peterkin, L. D.
Pettinger, R. W.
Preston, C. A.
Pringle, W. H. (1920).
Robinson, Mrs. M. E.
Rowell, Sir Herbert, K.B.E.
Sales, C. A.
Satyawadi, S. C.
Sealy, E. D. (life).
Shimasuye, S.
Siddeley, J. D., C.B.E.
Silva, F. S.
Simpson, C. V.
Stanley, T. S.
Stewart, P. M.
Strater, C. G. (life).
Takei, D. (life).
Tapscott, H. J. (life).
Tattersall, F. W.
Thornton, A. B.
Tocker, A. H.
The Bank of Taiwan, Ltd.
Trouton, R.
Turin, S. P.
Underdown, H. C. B., J.P.
Vakil, M. H. (life).
Waley, S. D.
Walsh, J. J.
Westerman, W.

The following have been admitted to library membership.—Government of the United Provinces of Agra and Oudh; Victoria University College, Wellington, N.Z.; Deptford Public Library; Mysore University Library; Bibliothèque Universitaire et Regionale, Strasbourg; le Directeur de Commerciaux Accords, Paris; the Hygiene Library, Scovill Manufacturing Co., Conn., U.S.A.; Provincial Library of Manitoba; Library of Parliament, Ottawa; Legislative Library, Toronto; University of British Columbia Library; Harvard College Library; Bryn Mawr College Library, Penna., U.S.A.; Wellington (N.Z.) City Council; University College Library, Reading; Oberlin College Library, Ohio; North-Western University School of Commerce Library, Chicago; Slocam Library, Ohio Wesleyan University; Brown University Library, Providence, R.I.; Coburn Library, Colorado College:

Iowa State College Library; Albion College Library, Michigan; Minneapolis Athenæum; University of Kansas Library; Michigan State Library; Signet Library, Edinburgh; Mount Holyoke College Library, Mass., U.S.A.; Newcastle-upon-Tyne Public Library.

PROFESSOR ACHILLE LORIA writes as follows: "In the course of the last few weeks Italy has lamented the loss of two eminent scholars of statistical and economic science—Luigi Bodio and Ghino Valenti.

"Bodio, appointed Director of the Italian Bureau of Statistics, brought it to the point of competing with, and even surpassing, the analogous institutes of other countries, making of it not only the training-ground of a number of promising young men occupied with the application of statistical methods, but the source of numerous and valuable publications on the most diverse aspects of national and international statistics. In fact, the golden age of Italian official statistics may justly be said to coincide with the period of Bodio's reign. When a policy of retrenchment led the Italian Government to curtail regardlessly its grant to the Italian Official Statistics Department, thus compelling it to suspend its publications, or at least to reduce them to absurdly small proportions, Bodio resigned the post which it was no longer possible for him to fill with dignity, and turned his activities to political and administrative duties. But his contribution to statistics was not restricted to the work of the Bureau, for he has also published the leading book on *Some Indexes Measuring the Italian Economic Movement*—which is now in its second edition. All those, however, who had not the fortune to make his personal acquaintance, can have but a pale conception of the amazing variety of his learning, which extended—and with complete mastery—from the Homeric poems to the books of Mgr. Duchesne, from the history of architecture to studies in early languages, from modern accounting to the songs of mediæval troubadours. With him has departed not only a great economist and statistician, but also a humanist or encyclopædist; one of the last descendants of that versatile and prolific school which the telephone and the aeroplane seem destined to dispel for ever from the land of the living.

"Ghino Valenti, after publishing some remarkable essays on different subjects (Romagnoli, speculation, co-operation, besides a profound criticism of my own theories), as well as a *Manual of Political Economy* which has run into a second edition, applied

himself to agrarian economy, and very soon became an authority on the subject in Italian literature. Commissioned to reorganise Italian agrarian statistics, at that time in a chaotic state, he brought to the difficult task extraordinary ability and sagacity, and succeeded in reconstructing perfectly that important service. But, besides this practical work, he contributed to agrarian progress by a series of eminent monographs, on the *Campagna* of Rome, the emphyteusis, agrarian corporations, the development of Italian agriculture in the last fifty years—which are the best Italian writings on agrarian subjects since the classical studies of Jacini. Opposed to all absolute theories and to monosyllabic solutions, and tending to take a moderately relative view on questions, he inclined in the last years of his life towards Protectionism, which laid him open to many violent attacks from the Liberal economic school. But even those who cannot forgive him for this heterodoxy must bow before the adamantine uprightness and scientific honesty which never once abandoned him throughout his noble career. His works constitute a monument of science, of practical sense, and of enlightened patriotism, which Time, the destroyer of undeserved fame but the consecrator of genuine merit, will not obliterate, but will rather embellish with a perennial crown of devout admiration."

MR. C. H. D'E. LEPPINGTON writes as follows, in supplement to his memorandum in the JOURNAL for September, 1917, on the extent of undertakings yielding no return to the capital invested in them: "In all, seventy-six issues of every description have made default between November, 1916, and August, 1920. Of these, thirty were government and other securities of Russia. To set against this almost unchecked current of depression is the frequent resumption of payment of interest which had been suspended during the war. The names of a number of companies present in the earlier list are absent, it is true, in that for last August, but this need not mean that they all have gone under, but simply that some have been absorbed in larger undertakings. In the industrial and commercial group of upwards of six hundred undertakings only nine are in default since 1916, including one in the States and one in Russia, and fifteen have disappeared. Only one brewery is in default and one has disappeared out of seventy-five on the list. Among iron and coal concerns the ratio of disappearances is only 5 per cent. and defaults are nil. Among the few which have gone under is the Thames Ironworks at Blackwall, the sole surviving memorial in our day of the once

flourishing shipbuilding industry of the Port of London. The instances in which undertakings which were in default during the war have resumed payment of dividends are much more numerous than the defaults occurring since 1916, and reach a total of 125. Among these are eight foreign and colonial railways, eleven breweries (three of them in the United States), three mines and three nitrate works. Recoveries, however, have been most numerous among financial and land trusts, whose operations are mainly outside the British Isles, and in the extremely large group of something over 600 miscellaneous commercial and industrial undertakings. Of the former twenty-seven and of the latter fifty-two have resumed payment. Among these last are seven hotel companies which were hit hard in the war. At the same time it should be noted that the jump in the number of bankruptcies from 649 in 1918 and 753 in 1919 to 1,591 during last year witnesses to the strength of the present reaction against the artificial prosperity of the war period and just after."

IN view of a change in warehousing arrangements, it is proposed to pulp a quantity of those back Nos. of the ECONOMIC JOURNAL of which there is a substantial number in stock. Before this course is taken, however, the Nos. in question are offered to Fellows, for the completion of sets, at a low rate.

Applications, accompanied by a remittance, should be addressed to the Assistant Secretary, Mr. S. J. Buttress, 6, Humberstone Road, Cambridge.

Vols. XIV.–XX. (1904–1910) at 4*s.* a volume, unbound; and Vols. XXI.–XXVI. (1911–1916) at 7*s.* 6*d.* a volume, unbound.

The following parts can also be supplied separately at 1*s.* a part :—Nos. 53 (March, 1904) to 80 (December, 1910) inclusive; Nos. 83 (September, 1911) to 87 (September, 1912) inclusive; Nos. 93 (March, 1914), 94 (June, 1914); Nos. 97 (March, 1915) to 99 (September, 1915) inclusive; Nos. 102 (June, 1916) to 104 (December, 1916) inclusive; and No. 106 (June, 1917).

Copies of "Fiscal Relations of Great Britain and Ireland" (Supplement, 1912) can be supplied at 6*d.* a copy.

Owing to the necessity of pulping at an early date, the above offer can only be held open for a short period. The regular price to the public for back numbers of the JOURNAL, hereafter, will be 6*s.* a part and 30*s.* a volume (bound).

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

JANUARY, 1921. *The Organisation of Statistics* (Presidential Address). Sir HENRY REW. *The Maturing Debt.* Sir DRUMMOND DRUMMOND FRASER. A proposal for meeting debt by means of "bonds on tap," payable in discharge of taxes; criticised by Mr. Hartley Withers and other experts. *Molecular Statistics.* F. Y. EDGEWORTH. A description, freed from technicalities, of the writer's article in the *Philosophical Magazine* for Sept., 1920, on the application of probabilities to the random movement of gas molecules.

Contemporary Review.

DECEMBER, 1920. *High Wages, their Cause and Effect.* Sir HUGH BELL. Illustrating the causes which operated during the war and the bad effects on industry, there are presented interesting statistics. In a typical railway company with which the writer is connected, the average annual earnings of men of all ages in the railway service were in 1912 just over £73 per head. The corresponding figure for the men in the collieries, ironstone mines and limestone quarries of Bell Brothers was just under £71. By 1920 the former figure had risen to £257; while the latter had risen to £219. The proceeds of the writer's collieries were divided as follows: Wages and salaries, 75 per cent.; rents, royalties, timber, and stores, 15 per cent.; balance available for extension, dividends, etc., 10 per cent. Of the payment for stores and timber a proportion must ultimately go to wages; 50 per cent. Sir Hugh says, with reference to analogous figures which he cites from Command Paper 949 (1920). The allocation of the income earned by the aforesaid railway is also very instructive. *The Reconstruction of Europe.* Prof. G. VON SCHULZE-GAVERNITZ. The "psychological obstacles" to co-operation raised by German methods of warfare are obviated by setting off against those misdeeds the starvation of German children through the British blockade even after the armistice. Mutual condonation leads to mutual help. German working power should co-operate with Anglo-Saxon to utilise the natural wealth of Russia; "one of the weightiest and best founded conclusions in Keynes' celebrated work." German export must be restored in order that she may be able to pay an indemnity. which should not exceed the sum estimated by Keynes. The payment should be suspended for four or five years. Among other requisites for reconstruction are the coalfields of Upper Silesia, and a "most favoured nation" clause not, as now,

one-sided. Thus may be realised "the ideal of the solidarity of the world" . . . "of universal goodwill." *Capital and Labour in Italy.* E. STORER. The capture of factories by the metal workers last September did not spread, though a considerable minority of the Socialist Party voted for the extension of this "lock-in" policy. The experiment of running the factories without the capitalists and their technicians taught the leaders something. So a Joint Committee to settle the conditions of "control" was decreed by Government. The term "controllo" sometimes means only checking accounts. But the demands made by the Workmen's Council—not yet satisfied—seem to leave no power to the employer.

FEBRUARY, 1921. *The Creative Impulse in Industry.* B. L. HUTCHINS. A powerful protest against the deadening monotony of factory work; which the American manufacturer, Robert Wolf, successfully combats.

Quarterly Review.

JANUARY, 1921. *The Wages Problem in Agriculture.* Sir HENRY REW. After decades of low pay a *Minimum Wage* was proposed in 1913 (by the Land Enquiry Committee, over which Mr. A. H. ACLAND presided), and was adopted in 1916. It is carried out by the Agricultural Wages Board, of which four-fifths are agriculturists, farmers and labourers, one-fifth is appointed by the Minister. Their decisions affect over a million employers and workpeople, say five million persons. On the last occasion of fixing the minimum the workers stood out for 50s., the employers for 42s., the appointed members carried 46s., the other members abstaining from voting. *The International Labour Office.* ALBERT THOMAS. A summary of the results achieved by the Labour organisation during its first year. *Bolshevism and Democracy.* Prof. Sir WILLIAM ASHLEY. The undemocratic character of the present Russian Government is exhibited.

Edinburgh Review.

JANUARY, 1921. *Capitalism. II.* A. SHADWELL. If, as Marx defined, "capitalistic production only then really begins when each individual capitalist employs simultaneously a comparatively large number of workmen," the concentration of Capital which was to introduce the fall of the system has not yet arrived. The number of business concerns in Germany employing 1.5 persons was recently greater than the number employing over 50. Of "manufacturing establishments" in the United States more than half employed from one to five wage earners. Marx and the more original Sismondi did not anticipate Limited Liability, Trade Unionism, State regulation, and other agencies which have averted threatened catastrophe.

Fortnightly Review.

FEBRUARY, 1921. *The Increased Cost of Living.* STATISTICIAN. The figures of the Ministry of Labour do not represent existing households. "They assume the consumption of the same commodities in the same quantities and qualities as before the war."

They obscure the "bedrock fact" that we are all poorer and must all live more frugally. Economy and the use of cheap substitutes does not imply a lower standard of life.

The Round Table.

DECEMBER, 1920. The descriptions of the Miners' Strike and of the International Conference, and the reflections thereon, are especially noticeable.

The Eugenics Review.

OCTOBER, 1920. *Some Birthrate Problems.* Major LEONARD DARWIN. Is there a growing correlation between efficiency and infertility, owing to the "dys-genic" effects of birth limitation? Can the fertility of the less fit be counteracted? *The Fertility of the English Middle Classes.* J. W. BROWN, Major GREENWOOD, and the late FRANCES WOOD. From samples of married women, some educated at Universities (or Colleges of University standard), and some "non-collegiate," it is found, among other interesting conclusions, that there is no essential difference between the fertilities of the women who have, and those who have not, received a University education. Apparent differences are explained by difference of age at marriage.

Indian Journal of Economics (Allahabad).

JANUARY, 1921. *Prosperity and Debt in the Punjab.* M. C. DARLING. *A Study of the Indian Food Problem* (concluded). D. S. DUBEY. Two-thirds of the population get only three-fourths of the amount of food necessary for efficiency. There is urgent need of agricultural improvements. *Substitution of Silver for Gold in South India.* H. DODWELL. *Classification of the Economics Section of a Library.* H. STANLEY JEVONS.

Journal of the Society of Comparative Legislation and International Law. (Edited for the Society of Comparative Legislation by SIR JOHN MACDONELL and C. E. A. BEDWELL.)

Third Series. Vol. II. Part III. This issue contains among other articles of economic interest one by the HON. JETHRO BROWN, on *Industrial Courts in Australia.*

Quarterly Journal of Economics (Cambridge, Mass.).

NOVEMBER, 1920. *Savers' Surplus and the Interest Rate.* A. B. WOLFE. *Industrial Morale.* S. H. SCHLICHLER. *The British Coal Industry and the Question of Nationalisation.* R. H. TAWNEY. The pre-war conditions—some 1,500 companies raising about 270,000,000 tons of coal from 3,200 pits, and selling to about 1,500 factors, from whom it passed to above 2,700 distributors—and the control during the war, with the objections to the present system, are lucidly stated. The risk involved in Justice Sankey's scheme is balanced against the advantage of satisfying the miners and benefiting the consumers. *Taxes on Property and Property Increments in Italy.* L. EINAUDI. *Ross' Principles of Sociology.* T. N. CARVER.

The American Academy of Political and Social Science (Philadelphia).

NOVEMBER, 1920. *Social and Industrial Conditions in the Germany of to-day.* A series of articles mostly by Germans and mostly despondent. Thus Dr. BONN (Economic Adviser of the German Government) dwells on the scarcity of coal, and the effect of the blockade on the stamina of the working classes. Germany is forced to make reparations in such a way as to diminish her capacity for paying. E. V. STOLL, a neutral, dwells on the need of work and the moral factors in production. CHARLES TREVELYAN inquires, Is Germany approaching the abyss? and concludes that unless the vindictive indemnities, the coal tribute, and the military occupation are swept away, the industrial population of Germany must either perish or break out in revolt.

JANUARY, 1921. *Present Day Immigration* is the subject of this number. The relations between Japan and the United States occupy more than half the volume.

Journal of Political Economy (Chicago).

NOVEMBER, 1920. *Incentive and Output. A Statement of the Place of the Personnel Manager in Modern Industry.* L. C. MARSHALL. The "personnel manager" acts as the entrepreneur's lieutenant in getting men to work together. *The Teaching of Economics Again.* A. B. WOLFE. *The Webb-Pomerene Act.* ELIOT JONES. The origin and character of the Act of 1918 designed to promote the American export trade are outlined.

Political Science Quarterly (New York).

DECEMBER, 1920. *A System of Federal Grants in Aid.* II. PAUL H. DOUGLAS. *Coal Nationalisation in England.* H. M. B. HART. *Mobility of Labor.* PAUL F. BRISSENDEN and EMIL FRANKEL.

The American Economic Review.

DECEMBER, 1820. *Price Economics versus Welfare Economics: Contemporary Opinion.* FRANK A. FETTER. "There is a thorough-going inconsistency in Marshall's views as to the central aim of economics." Wesley Mitchell, "quite in the manner of Marshall, proceeds to issue various warnings and to place various limitations that give a very different meaning to what he had said, if they do not deprive it of all meaning." Taussig, "like Marshall, shows conflicting tendencies, but does much straighter thinking." And so on. "Price Economics" is a "fool's paradise." *Circulating Credit.* W. I. KING. The device for obtaining a loan without the necessity of paying interest is the source of banking profits. The expansion has been a chief cause of inflation. It has not led to the reduction of interest on bank loans.

The Butte Miners and the Rustling Card. PAUL F. BRISSENDEN. The Anaconda Copper Mining Industry in the Butte district (Montana) instituted an employment system, characterised by a permit to work, called "the rustling card"; which was not favourably received by mining unions. *A "Stabilized Dollar" would Produce Violent Changes in Periods of Falling Prices.* C. C. ARBUTHNOT. *Suggestions for Revision of the Federal Taxation of Income and Profits.* F. R. FAIRCHILD.

The Review of Economic Statistics (Cambridge, Mass.).

NOVEMBER, 1920. The measurement of increase in the volume of production begun in former numbers is continued with reference to manufactures; for which the (unadjusted) index for 1919 was nearly double what it was for 1899, while population increased by nearly 40 per cent.

DECEMBER, 1920. *The First Brussels Financial Conference.* A useful summary of the proceedings and of the separate memoranda contributed by economists. *An Index of the Physical Volume of Production.* The crude figures given in the November number are here adjusted.

JANUARY, 1921. The adjusted index numbers found in former issues for agriculture, mining, and manufacture are combined. Prof. BULLOCK reviews the year 1920: which culminated in industrial depression at home, political and economic unsettlement in Europe, and dislocation of international trade.

Musée Social (Paris).

OCTOBER, 1920. *Une contribution nationale en faveur des familles nombreuses.* A national provision for the support of large families is advocated.

Journal des Économistes (Paris).

NOVEMBER, 1920. *La Grève des Mineurs dans la Grande Bretagne.* YVES GUYOT. *La Conférence Financière internationale de Bruxelles.* A. RAFFALOVICH. The proceedings are likened to the exercises which might be produced by a class in philosophy or rhetoric on the question, What are the best means of assisting destitute relations? The writer does not favour the policy of national "*entr'aide*" as tending to pauperise, weakening the sentiment of individual effort.

DECEMBER. *La Puissance de payement de l'Allemagne et le traité de Paix de Versailles.* D. J. GHEORGHIN. The honest execution of the terms accepted is demanded. *L'enseignement du Bolchévisme dans le monde.* N. MONDET.

JANUARY, 1921. *Le Marché financier en* 1920. ARTHUR RAFFALOVICH. *Le droit de grève au Canada.* N. MONDET.

Revue d'Économie Politique (Paris).

NOVEMBER–DECEMBER, 1920. *La Banque néerlandaise pendant la guerre.* P. J. C. TETRODE. The writer is the Director of the Netherlands Bank. *Le crédit hollandais à l'Allemagne.* W. J. NIJGH. *La renaissance industrielle de la Belgique.* A MENNES. A cheerful prospect of returning prosperity. *L'introduction de la main-d'œuvre étrangère pendant la guerre.* B. NOGARO. The introduction into France of some fifty thousand workmen during the war has resulted in a useful definition of the conditions of immigration.

Le Christianisme Social (Paris).

NOVEMBER, 1920. *Le Bilan de la guerre.* CHARLES GIDE. On the "passive" side are the loss in war of nearly 1,400,000 men—almost the fifth part of the male population of France between 20 and 60 years of age, the deaths of civil population due to

invasion from 100,000 to 500,000, the diminution of births 1,500,000, the ruin of the richest departments, the expenses of the war—an annual interest of some £450,000,000—scarcity, inflation, disease, inexpiable hate of the vanquished, and Europe a witch-cauldron. On the "active" side the acquisition of Alsace-Lorraine, the German African Colonies, part of Congo and Syria, mines of coal and potassium, and the immaterial assets of prestige and glory, and the prospect of permanent alliance with two great Powers and the gratitude of many small ones.

Archiv für Sozialwissenschaft und Sozialpolitik (Tübingen).

JANUARY, 1921. *Die wirtschaftliche Theorie des Geldes.* KARL ENGLIS. Refering to Liefmann's "*Geld und Gold.*" *Die Krise der mitteleuropäischen Revolution.* DR. PAUL SZENDE. *Ueber das Problem des Dekadenz des Islams.* Prof. ARTHUR SALZ. *Zur Frage der Objectivität des wirtschaftlichen Princips.* Dr. HERV MOELLER.

De Economist (La Hague).

DECEMBER, 1920. *De uitbow van het internationaal Arbeidsrecht.* H. J. MANDERE. On international labour legislation. *Gemiddelde indexcijfers.* P. K. von TSCHUDI. A study on index numbers referring to Pierson's article on the subject in the ECONOMIC JOURNAL for 1896.

JANUARY, 1921. *De Wet van Aristophanes, alias Gresham, en hare Werking.* G. D. WILLINCK. On Gresham's law. *Valuta en bescherming.* Prof. Dr. C. A. VERRIJN STUART. On foreign exchanges, dumping, and protection.

Scientia (Milan).

Vol. XXVIII. No. CIV–12. *Il Marxismo e la Crisi Europea.* R. MONDOLFO.

The Russian Economist.

(This journal, the organ of the Russian Economic Association, is published bi-monthly in London.)

No. 1, SEPTEMBER–OCTOBER, 1920. *Russia and the Stability of Europe. The Railway Transport in Russia. The Social and Psychological Consequences of the Revolution in Russia.* W. BRAITHWAITE. The author of these three articles is an Englishman who worked for a long time in the Co-operative Movement. *The Russian National Debt.* G. A. PAULOVSKY. The total debt is some 33,000,000,000 roubles, of which only 13,000,000,000 are payable in gold. The total is about *ten* times the pre-war budget, which compares favourably with the figure for England and France, viz., 35. There is no doubt about Russia's ultimate solvency.

Giornale degli Economisti (Rome).

NOVEMBER, 1920. *Exportazioni, censimenti agrari e requisizioni nel settecento a Roma.* A. CANALETTI GAUDENTI. A study in the economic history of the 18th century *Il Controllo.* G. MAJORANA. The workers' demand for control of industry is considered.

Revista Nacional de Economia (Madrid).

Vol. VIII. No. 25. *La organización de la decadencia de España.* E. Riu. The editor takes a gloomy view of his country's prospects. The Absolute Monarchs of Spain never had so much power as her constitutional sovereigns. A few dozen rich families continually become richer, the numerous proletariat poorer. Protection will cause depopulation. *La politica de Allianzas y el commercio externo.* E. H. Del Villar. Neutrality,, rather than military alliances, is the policy for Spain.

Vol. IX. No. 26. *La crisis económica actual.* Emilio Riu. The evil results of the war to the world and to Spain are set forth. *La desorganización económica de Europa.* José Nart. *La participación integral en los beneficios.* Victor Paret. In favour of profit-sharing.

NEW BOOKS

English.

Askwith (Lord). Industrial Problems and Disputes London: Murray. 1920.

[To be reviewed.]

Bailward (W. A.). The Slippery Slope and other Papers on Social Subjects. London: Murray. 1920. Pp. 236.

[Reviewed above.]

Bank of Java. Annual Report for the year 1919-1920. Batavia: Kolff. 1920. Pp. 86.

Bowley (Arthur L.). Elements of Statistics. Fourth edition. London: King. 1920. Pp. 459.

[Part II has been completely rewritten and considerably extended both by the fuller treatment of theory and by the addition of numerous examples. For the convenience of those who possess the earlier edition to whom the revised Part I contains little that is new, Part II is issued separately. Part I brought up to date is also issued separately.]

Brenner (Henri). Some of France's Problems and how she faces them. Their bearing on Franco-British friendship. Marseilles: Barlatier. Pp. 15.

[An eloquent lecture delivered at the University of Manchester, Dec. 1920.]

Brown (Ivor). English Political Theory. London: Methuen. Pp. 177.

Buer (M. C.). Economics for Beginners. London: Routledge. 1921. Pp. 220.

Burns (C. Delisle). Government and Industry. London: Allen and Unwin. Pp. 315. 16s. net.

Burns (Emile). Modern Finance. London: Humphrey Milford. 2s. 6d.

Co-partnership. Report of the London Co-partnership Congress. October, 1920. London: Labour Co-partnership Association. Pp. 33. 2*s*. 6*d*.

[In the course of several meetings, at which distinguished chairmen presided, it was said to be more important that Labour should have a share of management than that it should share profits. Lord Emmott preferred co-partnership to Nationalisation, as satisfying the three tests: incentive to work, reward of ability, and saving. Sir George Gibb thought partnership in management well suited to the railway industry. He recommended a Committee including representatives of the Directors and the Workers; the latter, no doubt, specially concerned with the welfare of the staff.]

CROAL (JAMES F.). My Business and Yours. A Proposition. Pp. 19. London: Daniel. 6*s*. net.

[The proposal is that labour should be the standard of value.]

CURTLER (W. H. R.). *The Enclosure and Redistribution of our Land.* Oxford: Clarendon Press. 1920. Pp. 334.

DOOLEY (WILLIAM H.). Principles and Methods of Industrial Education. With an introduction by Charles Prosser. London: Harrap. 1921. Pp. 257.

[The writer is in charge of the Navy Yard Continuation School for the New York Board of Education.]

DOUGLAS (C. H.). Credit-power and Democracy. With a draft scheme for the mining industry. With a commentary on the included scheme by A. R. Orage. London: Cecil Palmer. Pp. xi + 212. 7*s*. 6*d*. net.

ECKEL (EDWIN C.). Coal, Iron, and War. A study of industrialism past and future. London: Harrap. Pp. ix + 375. 12*s*. 6*d*. net.

ELBOURNE (E. S.). Factory Administration and Cost Accounts. London: Longmans. Pp. xx + 811. A new edition, revised and rearranged. 45*s*. net.

FARADAY (W. BARNARD). Democracy and Capital. London: Murray. 8*s*. net.

FAYLE (C. ERNEST). Seaborne Trade. Vol. I. The Cruiser Period. (History of the Great War based on official documents.) Historical Section of the Committee of Imperial Defence. London: Murray. 1920. Pp. 442.

[The economic interest of this volume may be gathered from the headings of some of the chapters: "Covering Trade in the Far East," "The Beginnings of Trade Recovery, "Commerce and Commerce Destroyers," "Trade Activity in European Waters." The narrative is illustrated by splendid maps.]

Fight the Famine Council. The Needs of Europe. Its Economic Reconstruction. London: Premier House. Pp. 132. 2*s*. 6*d*. net.

Free Trade Conference, Report of the Proceedings of the International. London: Cobden. 1921. Pp. 140.

[The proceedings are those referred to in the ECONOMIC JOURNAL, Vol. xxx, p. 563.]

FRIDAY (DAVID). Profits, Wages, and Prices. New York: Harcourt. 1920. Pp. 256.

[To be reviewed.]

GILL (CONRAD). Government and People. An Introduction to the Study of Citizenship. With the collaboration of O. W. Valentine. London: Methuen. 1921. Pp. 307.

[The author is reader in Constitutional History, the collaborator is Professor of Education, in the University of Birmingham.]

GOUGH (GEORGE). Wealth and Work. (New Era Library.) London: Philip. Pp. 260.

[An admirable text-book.]

HARE (SIR LANCELOT). Currency and Prices. London: P. S. King. 1920. Pp. 74.

HURRY (JAMIESON B.). Poverty and its Vicious Circles. Second and enlarged edition. London: Churchill. 1921. Pp. 411.

KNOWLES (LILIAN). The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century. London: Routledge. Pp. xii + 417. 6s. 6*d*. net.

[To be reviewed.]

LAYTON (WALTER T.). An Introduction to the Study of Prices, with special reference to the history of the nineteenth century. London: Macmillan. Pp. xiii + 194. 7s. 6*d*. net.

[A new edition.]

League of Nations. An outline by its organisers. London: Macmillan. 1920. Pp. 282.

[The structure, history and other aspects of the League are described in a series of essays by different writers. Mr. H. B. Butler writes on the international labour organisation.]

LEAKE (H. MARTIN). The Basis of Agricultural Practice and Economics in the United Provinces of India. Cambridge: Heffer. 1921. Pp. 277.

LYONS (V. H.). Wages and Empire. London: Longmans. 1920. Pp. 96. 4s. 6*d*. net.

MCKNIGHT (W. H.). Ireland and the Ulster Legend, or the Truth about Ulster. Statistical tables compiled from Parliamentary Blue Books and White Papers. With notes and observations by the compiler and foreword by Sophie Bryant, D.Sc. London: King. 1921. Pp. 96.

[The foreword, which occupies a third of the booklet, concerns the economist, so far as it contends, with great ability, that Ulster is not superior in industrial qualities to the rest of Ireland.]

MAURTUA (D. V. M.). The Question of the Pacific. Enlarged in 1901.

MILNER (DENIS). Higher Production by a Bonus on National Ouput. A proposal for a minimum income for all, varying with national productivity. London: Allen and Unwin. 1920. Pp. 127.

PHILLIPS (C. A.). Bank Credit. A study of the principles and factors underlying advances made by banks to borrowers. London: Macmillan Co. 24s. net.

[The author is Professor of Economics at Dartmouth College.]

PICCIOTTO (CYRIL M.). The British Year Book of International Trade. Editor, C. M. Picciotto. London: Frowde. Pp. 292.

[A collection of essays, some of which reward the attention of economists; such as that of Ernest Schuster on *The Peace Treaty in its Effects on Private Property*, and that of Sir John Macdonell on *International Labour Conventions* (about the immigration of low-grade labour, the equalisation of the conditions of native and foreign labour, etc.), which, perhaps, may result in an International Labour Parliament more successful than the League itself.]

PIGOU (A. C.). A Capital Levy and a Levy on War Wealth. (The World of To-day. V. Gollancz.) Pp. 62.

[A levy on war wealth might be desirable as a supplement to, not a substitute or, a general capital levy; as to which see the writer's article in the ECONOMIC JOURNAL for June, 1918.]

RAWLINSON (H. C.). British Beginnings in Western India, 1579-1657. An account of the early days of the British Factory of Surat. Oxford: Clarendon Press. Pp. 158.

[The Puritan English merchants succeeded where the Portuguese failed, because they regarded themselves as traders temporarily settled in India. The Surat factory was run on monastic lines. But excess in eating and drinking was not considered a serious vice, and the mortality among the Company's servants was very high.]

RIORDAN (E. J.). Modern Irish Trade and Industry. With an historical introduction by George O'Brien. London: Methuen. 1920. Pp. 335.

[To be reviewed.]

ROWNTREE (B. SEEBOHM) and STUART (F. D.). The Responsibility of Women Workers for Dependants. Oxford: Clarendon Press. 1921. Pp. 65.

[By a careful investigation, based on samples numbering 13,637 women, in eleven large towns, it was found that 12 per cent. of women workers maintain dependants. If certain reforms were carried out—an adequate scheme of widows' pensions, an adequate minimum wage and a State grant to households with an exceptional number of children—the proportion of women workers having dependants would be reduced to 1.8 per cent.]

SAKSÉNA (E. B.). The Economic Effects of the War on India. Part I. Canning College, Lucknow.

[The author, who is Professor of Economics at Lucknow, has reviewed under appropriate heads the development of Indian industries during the war, and considered the prospects of further progress. In fiscal matters he is a moderate protectionist. India, he thinks, is too dependent on its agriculture. "Public opinion . . . means to see that India becomes in future self-supporting, so that its commerce, trade and industry no longer remain dependent on external supplies."

SCOTT (JAMES BROWN). The project of a permanent Court of International Justice and resolutions of the Advisory Committee of Jurists. Report and commentary. Washington: Carnegie Endowment. 1920. Pp. 235.

SECRIST (HORACE). Readings and Problems in Statistical Methods. New York: Macmillan Co. 1920. Pp. 427.

SMITH (C. MIDDLETON). The British in China and Far-Eastern Trade. London: Constable. Pp. ix + 295. 18s. net.

[The author is Professor of Engineering in Hong-Kong University.]

SMITH (WILLIAM). The History of the Post Office in British North America, 1639–1870. Cambridge: University Press. 1920. Pp. 356.

[The author was associated with the Canadian Post Office for thirty-six years.

SOLANO (E. JOHN). Labour as an International Problem. A series of essays comprising a short history of the international labour organisation and a review of general industrial problems. Edited by E. J. Solano. London: Macmillan. 1920. Pp. 345.

[Among the writers of essays are G. N. Barnes, H. B. Butler, Minoru Oka (on labour legislation in Japan), Sophy Sanger, and Albert Thomas (the French Socialist leader).]

SPRINGER (LEOPOLD). Financial and Commercial After-war Conditions. Reflections of a student of finance on the prospective position. London: P. S. King. 1920. Pp. 118.

[A second impression of a book first published in 1918. An optimistic survey.]

STOCKBRIDGE (F. P.) and TRABUE (M. R.). Measure Your Mind. London: Harrap. 1920. Pp. 349.

[A Study in "Mentimeters."]

THOMSON (SIR W. ROWAN). The Premium Bonus System. Glasgow: McCorquodale. Pp. 99. 10s.

WALSH (CORREA MOYLAN). The Problem of Estimation. A seventeenth century controversy and its bearing on modern statistical questions, especially index numbers. London: King. 1921. Pp. 144.

WEBB (SIDNEY). Grants in Aid: A criticism and a proposal. (New edition, revised and enlarged.) London: Longmans. 1920. Pp. 145.

[The new edition is enlarged by the addition of a final chapter entitled "*Marking Time amid Increasing Exigency.*" The total of Grants in Aid, about fifteen millions a year twenty-five years ago, is now four times that amount. As a remedy for the growing evil there is suggested functional differentiation of Parliament as proposed by the author in the *Socialist Commonwealth of Great Britain* (reviewed in the ECONOMIC JOURNAL, Vol. xxx). There are also additions throughout the work, mostly at the end of each chapter, bringing statements and figures up to date 1920.]

WEBB (SIDNEY and BEATRICE). Industrial Democracy. Edition of 1920, with new introduction. London: Longmans. 1920. Pp. 899.

[The bulk of the work is reprinted without change. The arguments respecting "payment by results" are said not to be impaired by changes of form ("premium-bonus," etc.). The chapter on the *Economic Characteristics of Trade Unionism* "stands, we think, after a couple of decades of examination by the British economists, in 1920 unchallenged. The student might usefully consider to what extent, if any, this analysis of the economics of Trade Unionism calls for further modifications of the somewhat stereotyped propositions of the economic textbooks as to profits and wages, the rate of interest, and the influence affecting the growth of capital." The Appendix to the original edition on the legal position of Trade Unionism and that on the legal minimum wage, now ancient history, have been omitted.]

WOOLMAN (MARY SCHENCK). Clothing. Choice, care, cost. (Lippincott's Family Life Series.) Lippincott. Pp. xi + 289. 6*s*. 6*d*. net.

YULE (G. UDNY). The Fall of the Birth-rate. A Paper read before the Cambridge Eugenics Society, May, 1920. Cambridge: University Press. 1920. Pp. 43.

[There has been since 1876 a fall in the birth-rate amounting to about one-third; the principal cause being the decreased fertility of married women. The difference between the fertility of unskilled workers and that of the upper and middle classes is great, and increasing.]

American.

ADAMS (THOMAS S.) and SUMNER (HELEN H.). Labor Problems. A text-book. New York (London): Macmillan Co. Pp. xv+579. *15s.* net.

[The authors are members of the Political Economy Staff of the University of Wisconsin.]

ANDERSON (B. M.). Effects of the War on Money, Credit, and Banking in France and the United States. (Carnegie Endowment for International Peace.) New York: Oxford University Press. 1919. Pp. 227.

BASS (JOHN F.). The Peace Tangle. New York: Macmillan Co. 1920. Pp. 345.

[A gloomy picture of Europe after the war; with suggestions for economic reconstruction.]

EAVES (LUCILE). Training for Store Service. The vocational experiences and training of juvenile employees of retail department, dry goods and clothing stores in Boston. Boston: Badger. Pp. 143.

[A report of investigations made in the Research Department of the Women's Educational and Industrial Union. The investigations were directed by the author.]

FISK (HARVEY E.). English Public Finance from the Revolution of 1688. With chapters on the Bank of England. New York: Bankers' Trust Company. 1920. Pp. 241.

[A lucid exposition of present and past finance.]

FISK (HARVEY E.). The Dominion of Canada. New York: Bankers' Trust Company. 1920. Pp. 174.

[An admirable description of economic features.]

HAIG (ROBERT H.), assisted by HOLMES (GEORGE E.). The Taxation of Excess Profits in Great Britain. A study of the British Excess Profits Duty in relation to the problem of excess profits taxation in the United States. Supplement to the Annals of the American Academy of Social Science. 1920. Pp. 244.

HUNTER (ROBERT). Violence and the Labor Movement. New York: Macmillan Co. 1919. Pp. 388. *10s. 6d.*

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[The work has been largely revised. The income tax, the inheritance tax the shifting and incidence of taxation. To be reviewed.]

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[A new kind of pedlar, whose pack contains fresh ideas and useful information, is here described. Far and wide among outlying rural districts knowledge is disseminated by "educational tours" and "demonstration trains."]

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[In the first volume the Greek law of 1910, Γ.ΧΜΒ, is described and appreciated; the second volume deals with departures from the law, and the way back to it from present inflation; in the third volume the system is compared with ordinary convertibility, its relation to the Gold Exchange Standard is shown, and the possibility of international money is considered.]

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[This well-known work, which first appeared as an official report upon Social Economy at the great Paris Exhibition, 1900, has now reached its fifth edition, and goes on growing in size and favour. It is divided into four parts dealing with the wages, the comfort (food, lodging, health, and education), security (savings, insurance, and public assistance) and independence of the working classes. It is written with the charm, and arranged with the lucidity, characteristic of the author, and brings up to date the description of the activities of the various agencies which aim at the improvement of the condition of the people.]

GIDE (PROF. C.). Des Institutions en vue de la transformation ou l'abolition du Salariat. Paris: Giard. Pp. 115.

[Of institutions aiming at one of these objects, productive co-operation is first considered. Its success is threatened by (1) big businesses, (2) the hostility of syndicalists, (3) the rift between the two species of co-operation. The prospect of serving public bodies as the "bracchianti" in Italy do is promising. The capitalist objections to profit-sharing are not weighty. More serious is the apprehension of the workers that their wages would be lowered. Under the head of *L'Actionnariat ouvrier* there is entertained the idea of compulsory saving, at least in businesses of a public character, enjoying a "concession."]

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[The conception of natural industries is examined historically and analytically; and with reference to modern international problems.]

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Spanish.

PÉREZ-ORDOYO Y LAPEÑA (LUIS). Función económica y social de los Trusts. Madrid: Ratés. 1920. Pp. 95.

[A memoir presented to and honourably mentioned by the Spanish Royal Academy of Moral and Political Sciences.]

THE ECONOMIC JOURNAL

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THE IMPERIAL BANK OF INDIA

THE Imperial Bank of India has been constituted by the amalgamation of the three "Presidency Banks" of Bengal, Bombay and Madras under legislation passed by the Indian Legislative Council last year, and it came into being on the 27th of January, 1921. The form which its constitution has taken will be described below, but the lines which its development follows can be better appreciated if some reference is first made to the banking system in India generally, and also to the place which the Presidency Banks have occupied in that system. This reference can fortunately be brief, as a full review of the position, as it was nine years ago, is contained in Chapter VII.—Indian Banking—of Mr. Keynes' *Indian Currency and Finance*, published in 1912, while earlier details of the history, etc., of the Presidency Banks will be found in Sir James Brunyate's *Account of the Presidency Banks* (1900), to which Mr. Keynes refers.

1. The money market and banking system of India comprises, as Mr. Keynes explained, the following as its four main constituents:

(i) The Presidency Banks, which have now been amalgamated into the new Imperial Bank;
(ii) the European Exchange Banks;
(iii) the Indian Joint Stock Banks; and
(iv) the *shroffs, mahajans, chettis* and other private bankers and money-lenders.

As Mr. Keynes went on to say, the first two of these constitute generally what he terms the European money market, and the rest the Indian money market—the more substantial Indian Joint Stock Banks occupying perhaps an intermediate position.

2. The Presidency Banks have formed the backbone of the internal banking system of India, the operations of the Banks of

Bombay and Madras covering, generally speaking, the Presidencies after which they were designated, and those of the Bank of Bengal covering, in addition to Bengal, Burma and the Provinces of Upper India. Apart from their headquarters offices in the Presidency towns, they had sixty-eight branches and sub-agencies at the more important centres within their spheres, including a few branches in Indian States and a branch of the Bank of Madras at Colombo. Without going into their past history, it may be said that they worked from the beginning under very rigorous restrictions as to the character of the business which they might undertake, the main object being to ensure that as semi-official institutions they should be conducted on the safest possible principles. Put very briefly, the principal restrictions imposed on them under the Presidency Banks Act of 1876, and in force at the time of the amalgamation, prohibited them from conducting foreign exchange business, from borrowing or receiving deposits payable out of India, and from lending for a longer period than six months, or upon mortgage or on the security of immovable property or upon promissory notes bearing less than two independent names or upon goods, unless the goods or the title to them were deposited with the bank as security.

As a set-off against these restrictions, the Presidency Banks were allowed to hold a portion of the Government balances free of interest. The use of these was originally granted them in 1862 as compensation for their being deprived of the right of note issue, which since that date has been entirely managed by the Government under separate legislation, regulating the conditions of the note issue and the reserve to be held against it. The Presidency Banks also undertook a large amount of Government work, such as the management of the public debt, and of the Government Treasuries at centres where the banks had branches. An exception was, however, made in the case of the "Reserve Treasuries," which were maintained by Government in the three Presidency towns and in which the bulk of the surplus funds of Government were usually accumulated. I shall have something further to say on this point when explaining the connection between the operations of the Government and those of the Presidency Banks, as well as between Government and trade finance generally, and also in discussing the considerations which led up to the amalgamation, and the actual constitution and functions assigned to the new Imperial Bank; I will not, therefore, for the moment enlarge further on the details of the business of the old Presidency Banks. I give, however, a summary state-

ment to show the capital, reserve, deposits and cash balances of the three banks immediately prior to the amalgamation :

	Capital.	Reserves.	Public (*i. e.* Govt.).	Deposits. Private.	Total.	Cash.
Bank of Bengal ..	200	210	388	3439	3827	1244
Bank of Bombay..	100	125	187	2650	2837	980
Bank of Madras ..	75	45	124	1529	1653	455
TOTAL	375	380	699	7618	8317	2679

[Figures in lakhs of rupees.]

It may also be of interest to reproduce a few figures to illustrate the growth in the total private deposits of the banks :

TOTAL PRIVATE DEPOSITS IN LAKHS OF RUPEES ON DECEMBER 31ST.

1870 ..	640	1910 ..	3234	1917 ..	6772
1880 ..	849	1914 ..	4004	1918 ..	5098
1890 ..	1476	1915 ..	3861	1919 ..	6821
1900 ..	1288	1916 ..	4471	1921 (January)	7618

In considering the above data, two facts should be noted. The first is a general one, and arises from the fact that the Presidency Banks are bankers' banks, and that a substantial proportion of their private deposits consist of the cash balances of other banks. Secondly, the rapid growth in the last six years does not represent merely normal development, but is largely due to the great increase in the volume of money in the principal money markets during the War owing to the enormous disbursements of Government, accompanied as these were by a great expansion of the currency and inflation of credit. These latter remarks apply also to the increase in the deposits of the other groups of banks.

3. The Exchange Banks, though their operations are not limited to India, play a most important part in Indian trade. The nature of their business is generally known, and does not, therefore, call for any detailed description here. But it may be said that their activities in regard to Indian trade are largely bound up in the financing of foreign commerce at the sea-ports. Like other banks, they receive deposits in India and, indeed, seek to attract these in order to obtain the funds required for the purchase (or discount) of export bills of exchange. Since 1913 their Indian deposits have grown from 30 crores to about 74 crores, but such deposits are collected almost entirely at the sea-ports. These institutions bank with the Presidency Banks.

4. The Indian Joint Stock Banks, which now number ninety-five with 230 branches, include a certain number of substantial

institutions conducted on modern lines; many of them are, however, very small concerns, only twenty-four of them having a capital of Rs.5 lakhs or over. In the few years previous to 1913, there had been a remarkable expansion of joint-stock banking in India, particularly in the Punjab, where, owing to the opening of the canal colonies and the growth of the export trade in wheat, there was a good deal of accumulated wealth. Many of the banks then started were conducted on unsound lines and without regard to the ordinary first principles of prudent banking, with the inevitable result. In 1913–14 no less than fifty-four Indian managed banks with a total paid-up capital of Rs.144 lakhs went into liquidation. Since then the annual liquidations have been of small mushroom banks, and the larger Indian banks now in existence are probably sound and well managed. The failures of 1913–14 undoubtedly gave a considerable set-back to the spread of banking, especially in Northern India, when previous to these failures the banking habit showed signs of taking root. Nevertheless, there has subsequently been a steady increase in the total deposits, as will be seen from the following figures :—

Deposits of Joint Stock Banks on December 31st.

	Lakhs.
1900	807
1912	2726
1913	2410
1914	1837
1915	1888
1916	2572
1917	3216
1918	4214
1919	6127

5. As regards the indigenous banking system, adequate attention has not perhaps been given to its scope and to the extent to which the Presidency Banks, at their head offices and branches, have helped to finance the internal banking system of India by their purchasing and re-discounting of internal bills of exchange, known generally as *hundis*. This matter has, however, a direct bearing on the question of banking development in India, and I accordingly reproduce a brief description of the system from a summary of it prepared for the use of the recent Currency Commission (pp. 13–14 of Appendices to Report of Indian Currency Committee, 1919) :

The people with whom the Bank deals directly are for the most part large shroffs of good standing in the principal cities. These men operate with their own capital and, generally speaking, it is only when they have laid out all their available

capital in purchasing the *hundis* of other (and usually smaller) shroffs that they come to the Presidency Bank. The shroffs whose *hundis* the larger shroffs have purchased have probably also similarly financed other and still smaller shroffs or mahajans, and so on until we get down to the smallest flea of all, namely, the village bania, or grain dealer or goldsmith. For instance, shroff A. at Amritsar may purchase a bill drawn by a grain dealer upon a Bombay merchant. A. may endorse the bill and sell it to B., a large shroff at Lahore, who sells it to the Presidency Bank, which sends it to their Bombay Agency for collection. Or the bill may be a pure finance bill (generally known as a " hand " bill, as opposed to a " trade " bill drawn against produce).

Speaking very generally, it may be said that the Bank's real security in the matter of purchasing or re-discounting bills is the personal standing of the drawee or endorser or acceptor, and the Bank has an elaborate and very efficient system of limits, whereby the amount of bills discounted for each shroff is watched. Put very briefly, the system is as follows: Shroff A. is given in the Bank's register a limit of, say, 20 lakhs, and at the same time the names of the drawers of the bills purchased from him by the Bank are watched. The Bank may have purchased from A., say, 15 lakhs of bills, the drawers of which are B., C., D., E., etc. If it is observed that shroff A. has been purchasing rather too many bills from shroff D., who is of comparatively small standing, or about whom not much is known, A. will be liable to be turned down, or, if the fact has been noticed by the Head Office, the Branch will at once be told to go slow.

As already mentioned, *hundis* are of two kinds—pure finance bills, known as hand bills, and trade bills. The Bank are much more particular as to the amount of the former that they discount for a shroff than the latter. This is not because they receive any documents on account of trade bills (their direct security is just as personal as in the case of hand bills), but because they know that, somewhere or other, produce or goods exist against the credit so created, that such goods must have been hypothecated to one or other of the shroffs whose names are on the bill, and that, if anything goes wrong, such shroff will be able to realise on the goods and so to reimburse the subsequent holders of the bill, to whom he is liable. In the case of hand bills, on the other hand, it is impossible to say definitely how far these represent a genuine trade demand or not.

The note then discusses some data supplied to show the extent of the *hundi* business done by the banks over a period of years, from which it appears that on some occasions over a third of the banks' total advances have been represented by the purchase of *hundis*, and proceeds:

It may be said broadly that the *hundi* rate rises and falls with the bank-rate proper, though somewhat in advance of it, and naturally so, for one is a discount rate and the other a rate for day-to-day loans. Thus, at the beginning of the busy season, the *hundi* rate would usually be higher than the bank-rate; the reverse being the case when the slack season is about to begin, so that the *hundi* rate may be said to be a sort of long-distance signal. When the Bank finds that it is not getting enough *hundis*, and its money is lying unemployed, it puts down the *hundi* rate; when, on the other hand, it feels that it has already got too much money in the bazaar, or, for some reason or other, wishes to consolidate and conserve its resources, it puts up the *hundi* rate, and may even go to the length of refusing to buy new *hundis*. No cases have come to official notice of a Presidency Bank making a wholesale refusal to *renew hundis*, although it may charge a rate considerably higher than that at which the original *hundi* was discounted. On special occasions, when the Bank is very hard pressed for money, it may impose a prohibitive rate on the bazaar, so as to force shroffs to endeavour to raise money elsewhere rather than to renew their *hundis* with the Bank.

6. It will be clear from what is said above that one of the dominant features in the situation is the backward condition of India in respect of up-to-date banking facilities. It should, indeed, be noted that at the present time there are more than 200 districts in India and Burma in which there is no branch of the Presidency Banks, and that in only a very few of them is there a branch of a Joint Stock Bank of any importance doing business on modern lines.

As regards the Presidency Banks, there was little probability that under conditions in which three banks were working independently, any further substantial increase in the number of branches could be looked for, owing mainly to considerations of territorial limits and of profit and loss. Theoretically, perhaps, it can be argued that in the development of banking it is desirable to rely on spontaneous growth as the result of private enterprise. It must be confessed, however, that under this policy of non-interference, advance in India has been but tardy and confined within very narrow limits. It is, of course, possible to attribute this fact to the proclivity of the people of India for holding their savings in the form of coin or bullion. But it would be possible to exaggerate the conservatism of the Indian people in this respect. A remarkable advance has taken place in the popularity of the note issue in recent years, as a result of improved facilities for encashment, while the success of the propaganda associated with the India War Loans threw an instructive light upon the amount

of money in the country, which is lying sterile and awaiting diversion into more profitable employment. There has also been a marked advance in the amount of deposits; the post office savings bank deposits, which at the end of the War, in spite of large withdrawals in its opening months, stood at nearly Rs.19 crores, as compared with less than Rs.10 crores in 1900, while the co-operative institutions have also undergone a marked if more modest development. Public opinion in India has in recent years been growing more articulate as to the necessity for a widespread increase in banking facilities, if India's industrial development is not to be hampered, and if the people are to be weaned from their predilection for holding their savings in a metallic form. The subject was brought prominently to the notice of the Industries Commission, and the currency difficulties of the Government during the War necessarily tended to force it more on their attention. As the Government of India have pointed out, however, it would not be altogether correct to ascribe the existing state of affairs solely to the ingrained habits of the people, their ignorance, their conservatism and their suspicion, which can only be removed by the process of education. That the spread of education will work a steady and substantial change in the mental attitude of the people in this matter is practically certain, but it is useless to educate people into civilised habits as regards keeping their money, if there are not at hand banking facilities for them to do so. Progress in these two respects must go hand-in-hand. Even, however, in the present stage of educational development, there is undoubted room for a much larger supply of banking facilities as witnessed by the temporary success of certain Northern India banks already referred to. In short, it is evident that the first essential of any scheme for improving the banking machinery in India was that it should contribute towards the solution of the problem here disclosed.

7. I must now turn to another important aspect of the situation, namely, the intimate connection which exists in the case of India between the operations of the Government in the currency department and those of trade. This connection applies alike to the foreign and to the internal trade. In the case of the former we have the fact that the Secretary of State has large obligations to meet in England every year on behalf of India. At the same time, in normal conditions, there is a large net indebtedness of trade to India, and this is set off to a great extent by the Secretary of State selling to trade in London bills to be

honoured in India at the Government treasuries at the Presidency towns. In the alternative, trade had to import sovereigns, but whichever method of remittance is employed the obligation fell on the Government of supplying currency to the extent and in the form required to pay for the produce expected. Within India again the machinery is very similar. In settlement of Council bills large sums are ordinarily payable by Government to the traders in the Presidency towns. On the other hand, traders there have to pay for produce up-country, whether for export or for local manufacture and consumption. Simultaneously the Government revenue comes in at a large number of treasuries up-country, and from the proceeds of this Government sells transfers to the traders on these interior treasuries, receiving payment therefor at headquarters. Omitting complications of detail, the broad fact remains that Government has intervened to undertake the supply of currency and the remittance of funds on wholesale lines throughout the country, the movements of funds on Government and on trade account being connected at every point. The net result is that the surplus treasury funds of Government tend to be drawn up towards its treasuries at headquarters, and experience has shown that it is by thus centralising them that they can from the point of view of the Government be most economically employed.

While, however, branches of the banks at centres up-country have usually conducted the treasury business of the Government, and retained such local treasury balances as the Government may have held there, this has not been the case in the Presidency towns, where the Government maintained separate reserve treasuries, and it is into these that the bulk of the surplus balances of Government has in the past been drawn. The Government have, it is true, been under an obligation to keep certain minimum balances with the Presidency Banks, and this contractual minimum has in recent years been substantially exceeded. But it has been a subject of substantial and repeated criticism that the retention of the Reserve Treasury system has been unscientific and uneconomical, involving as it does the lock-up of funds which might be usefully released for the benefit of trade, and the pressure of war conditions forced both the Banks and Government to realise clearly the practical benefit of a common policy. The extent to which a modification had in practice been adopted will be seen by a comparison of the disposition of the Government of India's treasury balances during the three pre-war years with that for the three years ending with March 1920. The figures

represent averages throughout the year, and are in lakhs of rupees :

Year.	Total Cash Balance.	Reserve Treasuries.	Other Treasuries.	Presidency Banks.		
				Head Offices.	Branches.	Total.
1911–12	1794	552	828	169	245	414
1912–13	2352	1071	830	208	243	451
1913–14	2469	991	918	239	321	560
1917–18	2524	425	817	823	459	1282
1918–19	1880	199	650	677	354	1031
1919–20	1979	146	676	828	329	1157

8. To recapitulate, it may be said that the amalgamation of the Presidency Banks has been influenced by the following im-immediate considerations, and that these constitute the main principles underlying the scheme.

In the first place, it has, for some years, been felt that the interests of the Presidency Banks were common and demanded a co-ordinated policy. This was particularly the case during the war, when it was found that friendly, though informal, co-operation between the authorities of the three banks proved much to their mutual interest. (Incidentally, the possibility that powerful banking interests in London might eventually obtain control of Indian interests, more particularly those of certain Indian Exchange Banks, lent added emphasis to the importance of consolidating the position of the Presidency Banks.)

Similarly, the events of the last few years have resulted in Government being in much more intimate personal touch with the Presidency Banks than formerly, with much benefit to themselves as well as to the banks and the general public. It was important to ensure that these relations should continue.

Thirdly, the necessity of providing more adequate banking facilities in India was becoming more and more insistent, and it was evident that a consolidated bank in close association with Government (and with access to London—a point which will be further referred to shortly) would be in a far better position than the existing institutions to provide for healthy banking developments in India, while at the same time bringing the resources of the Government into closer and beneficial relation with the commercial interests of the country.

9. The importance of these considerations has been recognised in proposals formulated in the past for the amalgamation

of the Presidency Banks. In the course of the earlier discussions, however (a summary of which will be found in Appendix XIII. of the Report of the Indian Currency Commission of 1913), suggestions of a much wider scope were also put forward, including developments which would associate the banks directly with the whole currency and exchange policy and administration of the Government of India, including the management of its paper currency and its foreign remittance business. The discussions, in fact, trended in the direction of the creation of a State Bank, and in an annexure to the report of the 1913 Commission, Mr. Keynes outlined a definite scheme for the formation of such a bank. The earlier proposals fell through for various reasons, such as provincial jealousies between the three banks and lukewarmness in other quarters, while, in the case of Mr. Keynes' scheme, consideration was postponed as the result of the War. The revival of the question after the armistice may be said to have been due to a natural banking evolution, and it was felt that it was undesirable to attempt to force a spontaneous growth which will in any case provide a most valuable foundation for any further development to which circumstances may point later on.

It was considered, however, that the time was not yet ripe for an advance in these directions. As regards the note issue, with the whole currency arrangements of Government still deeply affected as the result of war conditions, it would manifestly have been impossible for the new bank to contemplate the undertaking of this responsibility. The Government of India, however, indicated, when placing the scheme before the Secretary of State for India, that when a stable position has been reached and currency conditions have settled down, it may be anticipated that the management of the paper currency in India will consist of a more or less routine application of authoritatively accepted principles, and in that case the question of the employment of the bank as the agent of Government in this matter may in the future need further consideration. It may also be noted that the Government of India have taken power to adopt, within modest limits, the system in force in the United States, of providing for some automatic expansion and contraction of the currency by basing the issue of new notes to some extent on Commercial Bills, since under the Paper Currency Amendment Act of 1920 they may authorise the Controller of Currency to issue currency notes up to a limit of Rs. 5 crores against bills of exchange which will mature within ninety days of the date of issue. Details of the exact method of utilising these powers

remain to be settled, but there is little doubt that the machinery of the Imperial Bank will be employed in giving effect to the arrangement.

It was held that very similar objections applied to an immediate extension of the scope of the present scheme by entrusting the banks with the remittance business of the Secretary of State. But, short of this, it was decided, subject to certain limitations, to allow the bank access to London by the establishment of a London office. Access to London would, of course, form part of any wider scheme, but while it may not possess the same cardinal importance as the other features of the present amalgamation, the Presidency Banks have, in the past, individually and collectively felt it a grave reproach that they should be debarred therefrom. Certain obvious advantages would accrue from a London office, which would enable them to keep in touch with financial developments and financial opinion in Europe, and there was no reason why this legitimate wish should be any longer refused them.

10. Informal conversations on the whole subject took place between the Government and the banks shortly after the armistice, and these were followed by formal proposals putting forward an amalgamation scheme. After general acceptance of the main principles of the scheme by Government and the shareholders of the banks, it was placed before the Indian legislature, and the Act, defining the constitution and functions of the new bank, was passed in September 1920. This has been supplemented by a statutory agreement under the Act embodying the contractual relations entered into between Government and the bank, while a certain amount of important detail in the matter of the current administration of the bank will be dealt with by by-laws under the Act, to be framed by the governing body of the bank with the previous approval of the Government of India. I will first state as concisely as possible the main framework of the scheme embodied in these documents, and will follow this up by such detailed explanation as seems to be needed :

(*a*) *Capital.*—The Imperial Bank of India is formed by an amalgamation of the three previously existing Presidency Banks, their undertakings vesting in it, and the shares of existing holders being exchanged, subject to certain adjustments, into shares of the new bank. The amalgamation has been accompanied by an increase of capital, the authorised capital of the new bank being fixed at Rs.1125 lakhs (of which Rs.562½ lakhs—or one-half—will be paid up at the outset) and the reserves at 375 lakhs, against

an aggregate of 375 and 380 lakhs respectively for the older institutions.

(*b*) *Constitution.*—The governing body of the new bank will be a Central Board, which may "exercise such powers and do all such acts and things as may be exercised or done by the bank, and are not by this Act expressly directed or required to be done in general meeting."

The functions of the central and Local Boards are defined by by-laws, which are subject to the approval of Government. Briefly, the Central Board will deal only with matters of general policy, such as the movement of funds from one part of India to another, the fixation of the bank rate, which will in future be uniform for the whole of India, and the publication of the weekly statement. Local interests are safeguarded by the retention of the existing Boards in the three Presidency towns, and these will have very large powers of autonomy. The Central Board will have general power of control over the Local Boards, but will not ordinarily be entitled to interfere in individual cases, *e. g.* while there would be no limit to the Local Boards' powers to advance on Government securities, it would be open to the Central Board in an emergency to instruct a Local Board to curtail advances, either generally or to particular classes of industries, etc. The Central Board is responsible for settling disputes between Local Boards. It is incumbent on the Local Boards to keep the Central Board duly informed of all important developments, and to supply any statistical or other information called for.

The constitution of the Central Board (*vide* para. 11 (*b*) below) is designed to secure on it adequate representation of all important interests concerned, including Government, the Local Boards, the shareholders and the general public. As, however, it would, in practice, not be feasible for a Board so constituted to meet with sufficient frequency to administer the current business falling within its sphere, it is provided under the by-laws that the discharge of these functions shall ordinarily be delegated to a small managing committee, this including the managing Governors, the Controller of Currency and representatives of the Local Board at the place where the meeting is held. This committee will meet regularly and enjoy the full administrative powers of the Central Board subject to any special instructions which it may receive from the latter. It is contemplated that the Central Board shall sit for alternate periods at Calcutta and Bombay, meetings being held at fixed intervals, and additional meetings summoned whenever necessary. Any Local Board has the right

to require a full meeting of the full Central Board to be summoned at any time to consider any special matters, as, for example, if it is dissatisfied with the orders of the smaller body.

As a matter of convenience it may eventually be found advantageous to make some readjustment of territory between the present three Local Boards, and as business develops, it may become desirable to constitute new Local Boards at such centres as Rangoon and Cawnpore; provision has accordingly been made for this contingency in the Act. The Members of each Local Board are elected by the shareholders borne on the local register.

(c) *Business.*—The bank will act as banker for Government, and undertake and transact any business that the Government may from time to time entrust to it. Apart from Government work, the business of the bank will generally follow the lines of that of the Presidency Banks; opportunity has, however, been taken to remove certain restrictions which, while not affording any real safeguard, had proved inconvenient in practice.

(d) *London Office.*—The bank will have an office in London. This, while not competing with the Exchange Banks in ordinary exchange business, will be in a position to conduct business on behalf of the bank's own constituents, and to re-discount bills of exchange for the exchange and other banks.

(e) *Reserve Treasuries.*—By agreement, the Government have appointed the bank as their sole banker in India. This involves the abolition of the reserve treasuries, and the keeping of all their treasury balances with the bank at places where it has a local head office or a branch. In addition, transfers of money for the general public between any two places, at each of which a local head office or branch of the bank is situated, will no longer be undertaken by the Government. The bank will give the public every practicable facility for transfers of money at rates not in excess of those approved by the Controller of Currency, and will also arrange, *e. g.* in connection with the encashment of notes, to supply the public so far as possible with the form of currency required.

(f) *Public Debt.*—The bank will retain the administration of the public debt work, and will use its best endeavours to introduce a large measure of decentralisation and simplification of procedure therein.

(g) *New Branches.*—The bank has undertaken, within five years from the commencement of the Act, to establish and maintain not less than 100 new branches, of which at least

one-fourth will be established at such places as the Government of India may direct.

11. It is desirable to develop some of the above points rather more fully :—

(*a*) *Capital and Reserves of the new Bank.*—Of the total authorised capital of the new bank, viz. Rs.1125 lakhs, Rs. 375 lakhs consists of fully paid shares of Rs. 500 each (representing the capital of the shareholders in the existing Presidency Banks), and the balance of Rs.750 lakhs of quarter paid shares of Rs.500 each with Rs.125 paid up, these latter having been offered in the first instance at par to existing shareholders of the Banks of Bengal and Bombay and at a premium of Rs. 100 to shareholders of the Bank of Madras. Some adjustment of the existing reserves has taken place in order further to equalise the position of the shareholders in the three banks, and the total reserve of the new bank will stand at Rs.375 lakhs, as soon as the new shares issuable to the shareholders of the Bank of Madras have been taken up and the premiums thereon credited to the reserve.

While it was recognised that there might be some advantages in having no uncalled capital, it was thought that the circumstances in which the new bank was inaugurated outweighed this general consideration. There was no immediate necessity for the employment of the full Rs. 750 lakhs of new capital, and it seemed preferable to call up only so much as could be profitably employed at once, leaving power to the management to make further calls as required.

It was not thought desirable that the informal association of Government with the bank should be accompanied by any participation by them in its share capital.

When the new capital has been fully taken up (a period of grace up to the end of July 1921 has been allowed to enable shareholders absent from India the necessary opportunities for the purpose), the Banks' position as regards capital and reserve will stand as follows :

	Rs. lakhs.
Authorised capital	1125
Fully paid capital	375
Partly paid capital (Rs. 750 lakhs 25% paid)	187½
Total capital paid up	562½
Reserves	375
Reserve liability of shareholders	562½

The new bank came into being on the 27th January, 1921, but, for the reasons just given, a short period will elapse before the above position is actually reached.

(*b*) *Constitution.*—The composition of the Central Board is as follows:

(i) The presidents and vice-presidents of the existing Local Boards (these being of course the representatives of the shareholders).

(ii) The Controller of Currency or such other officer as may be nominated by Government (for his functions and powers, see (*e*) below).

(iii) Such number of persons not exceeding four as may be nominated by Government. (The object of these nominations is to ensure that the interests of the Indian community generally should be adequately represented in so far as this may not be secured by the representatives of the Local Boards on the Central Boards.)

(iv) The Secretaries of the Local Boards.

(v) One or two Managing Governors to be appointed by the Government of India after consideration of the recommendations of the Central Board, and to hold office for such period as the Government of India may direct. (It may be noted that the first two governors are Sir Norcot Warren and Sir Robert Aitken, formerly Secretaries and Treasurers of the Banks of Bengal and Bombay respectively, Sir Bernard Hunter, who formerly held that position in the Bank of Madras, having been appointed as the first London Manager.)

(vi) Such representatives of Local Boards subsequently constituted as the Central Board may prescribe.

Governors appointed under clauses (ii), (iv) and (vi) while entitled to attend all meetings of the Central Board and to take part in its deliberations, will not be entitled to vote on any question arising at any meeting. The Central Board will have the power of decentralising the business of the bank by the creation of new Local Boards, and also, with the previous approval of the Government of India, of making by-laws on certain important matters including the delegation of its own powers or those of the Local Boards and Managing Committees.

Local jealousies were a serious impediment in the way of earlier proposals for amalgamation. But it is believed that by the arrangements adopted a satisfactory solution has been found under which important matters requiring uniformity of policy will be retained in the hands of the Central administration, without disturbing the local control and experience necessary for the efficient transaction of business by the Local Boards.

(*c*) *Business.*—Apart from the general powers necessary for

the conduct of Government business, establishment of branches and agencies, the acquisition of premises, and so forth, the kinds of business which the bank is authorised by law to transact, and those which it is precluded from transacting, are set out in the schedule below. The general criterion as to what business is admissible, and what is not, has already been indicated, and no special further explanations on this point appear to be required :

SCHEDULE OF IMPERIAL BANK OF INDIA ACT.

Part I.

Business which the Bank is authorised to carry on and transact.

The Bank is authorised to carry on and transact the several kinds of business hereinafter specified, namely :—

(*a*) the advancing and lending money, and opening cash-credits upon the security of :

(i) stocks, funds and securities (other than immovable property) in which a trustee is authorised to invest trust money by any Act of Parliament or by any Act of the Governor-General in Council and any securities of a Local Government or the Government of Ceylon;

(ii) such securities issued by State-aided railways as have been notified by the Governor General in Council under section 36 of the Presidency Banks Act, 1876 or may be notified by him under this Act in that behalf;

(iii) debentures or other securities for money issued under the authority of any Act of a legislature established in British India by, or on behalf of, a district board;

(iv) goods which, or the documents of title to which, are deposited with, or assigned to, the Bank as security for such advances, loans or credits;

(v) accepted bills of exchange and promissory notes endorsed by the payees and joint and several promissory notes of two or more persons or firms unconnected with each other in general partnership; and

(vi) fully paid shares and debentures of companies with limited liability, or immovable property or documents of title relating thereto as collateral security only where the original security is one of those specified in sub-clauses (i) to (iv), and if so authorised by any general or special directions of the Central Board, where the original security is of the kind specified in sub-clause (v) :

Provided that such advances and loans may be made, if the Central Board thinks fit, to the Secretary of State for India in Council, without any specific security;

(*b*) the selling and realisation of the proceeds of sale of any such promissory notes, debentures, stock-receipts, bonds, annuities, stock, shares, securities or goods which, or the documents of title to which, have been deposited with, or assigned to, the Bank as security for such advances, loans or credits or which are held by the Bank or over which the Bank is entitled to any lien or charge in respect of any such loan or advance or credit or any debt or claim of the Bank, and which have not been redeemed in due time in accordance with the terms and conditions (if any) of such deposit or assignment;

(*c*) the advancing and lending money to Courts of Wards upon the security of estates in their charge or under their superintendence and the realisation of such advances or loans and any interest due thereon, provided that no such advance or loan shall be made without the previous sanction of the Local Government concerned, and that the period for which any such advance or loan is made shall not exceed six months;

(*d*) the drawing, accepting, discounting, buying and selling of bills of exchange and other negotiable securities payable in India, or in Ceylon; and, subject to the general or special directions of the Governor General in Council, the discounting, buying and selling of bills of exchange, payable outside India, for and from or to such Banks as the Governor General in Council may approve in that behalf;

(*e*) the investing of the funds of the Bank upon any of the securities specified in sub-clauses (i) to (iii) of clause (*a*) and converting the same into money when required, and altering, converting and transposing such investments for or into others of the investments above specified;

(*f*) the making, issuing and circulating of bank-post-bills and letters of credit made payable in India, or in Ceylon, to order or otherwise than to the bearer on demand;

(*g*) the buying and selling of gold and silver whether coined or uncoined;

(*h*) the receiving of deposits and keeping cash accounts on such terms as may be agreed on;

(*i*) the acceptance of the charge of plate, jewels, title-deeds or other valuable goods on such terms as may be agreed on;

(*j*) the selling and realising of all property, whether moveable or immovable, which may in any way come into

the possession of the Bank in satisfaction or part satisfaction of any of its claims;

(*k*) the transacting of pecuniary agency business on commission;

(*l*) the acting as administrator, executor or trustee for the purpose of winding up estates and the acting as agent on commission in the transaction of the following kinds of business, namely :—

(i) the buying, selling, transferring and taking charge of any securities or any shares in any public Company;

(ii) the receiving of the proceeds whether principal, interest or dividends, of any securities or shares;

(iii) the remittance of such proceeds at the risk of the principal by public or private bills of exchange, payable either in India or elsewhere;

(*m*) the drawing of bills of exchange and the granting of letters of credit payable out of India, for the use of principals for the purpose of the remittances mentioned in clause (*l*) and also for private constituents for *bona fide* personal needs;

(*n*) the buying, for the purpose of meeting such bills or letters of credit, of bills of exchange payable out of India, at any usance not exceeding six months;

(*o*) the borrowing of money in India for the purposes of the Bank's business, and the giving of security for money so borrowed by pledging assets or otherwise;

(*p*) the borrowing of money in England for the purposes of Bank's business upon the security of assets of the Bank, but not otherwise; and

(*q*) generally, the doing of all such matters and things as may be incidental or subsidiary to the transacting of the various kinds of business hereinfore specified.

Part II.

Business which the Bank is not authorised to carry out or transact.

The Bank shall not transact any kind of banking business other than those specified in Part I and in particular :—

(1) It shall not make any loan or advance:

(*a*) for a longer period than six months, or

(*b*) upon the security of stock or shares of the Bank, or

(*c*) save in the case of the estates specified in clause (*c*) of Part I, upon mortgage or in any other manner upon the security of any immovable property, or the documents of title relating thereto.

(2) The Bank shall not (except upon a security of the kind specified in sub-clauses (i) to (iv) of clause (*a*) of Part I) discount bills for any individual or partnership-firm for an amount

exceeding in the whole at any one time such sum as may be prescribed, or lend or advance in any way to any individual or partnership-firm an amount exceeding in the whole at any one time such sum as may be so prescribed.

(3) The Bank shall not discount or buy, or advance and lend, or open cash-credits on the security of any negotiable instrument of any individual or partnership-firm, payable in the town or at the place where it is presented for discount, which does not carry on it the several responsibilities of at least two persons or firms unconnected with each other in general partnership.

(4) The Bank shall not discount or buy, or advance and lend or open cash-credits on the security of any negotiable security having at the date of the proposed transaction a longer period to run than six months or, if drawn after sight, drawn for a longer period than six months:

Provided that nothing in this Part shall be deemed to prevent the Bank from allowing any person who keeps an account with the Bank to overdraw such account, without security, to such extent as may be prescribed.

(*d*) *London Office.*—The general restrictions on the business of the London Office have already been stated, and as is laid down by the Schedule just cited, bills of exchange payable outside India may only be bought or sold for, or from, or to such banks as the Government of India may approve in that behalf. Also the London Office may not open cash credits or keep accounts for, or receive deposits from, any person who is not, or has not been within the three years last preceding, a customer of the bank or of one of the Presidency Banks in India (or Ceylon). In addition, the agreement provides that the London Office must present to the Secretary of State for India every week a statement of the total Government balances held by it and of its resources in London, and that the Secretary of State shall be at liberty (after due consultation with the bank) to withdraw money in London against a corresponding debit to the Government account with the Bank in India.

(*e*) *Reserve Treasuries.*—I have already dealt at some length with the general aspects of this question. Two points, however, remain to be noted. In the first place it was necessary to consider what further safeguards, if any, should be taken from the new bank, over and above those previously existing, in view of its enlarged aggregate responsibility in the matter of the custody of the public funds, and of the fact that with the definite abolition of the Reserve Treasuries, there would be a loss of the power to withdraw at any time from the bank the public deposits in excess

of the guaranteed minimum, a power which in the past has necessarily enabled the Government to exercise an informal influence over the general policy of the banks. The solution adopted was to reserve to the Government of India power to issue instructions to the bank in respect of any matter which in their opinion vitally affects their financial policy or the safety of the public balances, and, in the event of the bank disregarding such instructions, to declare the agreement with the bank to be terminated. It is primarily for this reason that a representative of the Government has been given a place on the Central Board. It will be his function and duty to keep in touch with the bank's general policy, and he will have the statutory power of holding up action on any matter of high importance of the above description, pending the orders of Government thereon. In practice this arrangement will have advantages from the point of view of the bank also, since it may be expected that the presence of an experienced Government officer on the Board will conduce to smooth working, and help to ensure that the bank is kept fully and rapidly informed of Government's requirements in the matter of funds, and of the way in which Government's policy is likely to react on its own.

The second question is that of the financial adjustments with the bank required in view of the concessions conferred on it, and in particular the increased use of Government funds free of interest. The concession is obviously a valuable one, and it might be argued that there was justification for participation by the State in the profits of the bank, as, for example, by the payment to the former of interest upon the average amount of Government deposits above some specified sum, or by a definite share of the profits after a certain dividend has been realised. There were, however, certain important considerations on the other side. In the first place, the undertaking to adopt a progressive policy in the matter of opening new branches will, there is little doubt, for some time result in a loss to the bank on their working. Those centres of trade at which a branch is likely to show a profit in the near future had to a large extent already been exploited by the three Presidency Banks, and, as new branches are established, a comparatively longer time must elapse before the opening up of the localities concerned will result in a business profit to the branches of the bank established therein. Secondly, the possession of additional funds derived from Government will entail additional responsibilities, and it will be necessary for the new bank so to arrange its policy as to maintain itself in a position

to meet sudden and unforeseen demands, which have previously fallen on the reserve treasuries. Thirdly, the bank will no longer be entitled to receive any fixed minimum in the way of a Government balance at individual branches, and it follows that by this pooling of resources, it will, at certain times, be using its own private funds for Government purposes. Apart, therefore, from the case of the public debt, where the cost of the work involved can be fairly accurately estimated and will be paid for with reference to its actual volume, it was felt that data were lacking to balance the account however roughly. It was consequently decided that no financial adjustment should be made or claimed on either side in respect of the first few years of the bank's working, but that the whole question should eventually be reviewed in the light of experience.

(*f*) *Public Debt.*—A great deal has been done in recent years in the way of overhauling the procedure of the public debt administration. To popularise Government securities and to meet the convenience of the rapidly increasing number of small holders, it is clearly of the first importance to eliminate unnecessary formalities and otherwise to simplify and expedite business as far as possible. Previously the main work in connection with the debt administration, *i. e.* as regards registration of holdings, payment of interest and renewal and conversion of securities, has been centralised in the Public Debt Office at Calcutta—managed by the head office of the Bank of Bengal—subject to some limited delegation to the branch Public Debt Offices at Bombay and Madras—managed by the other two banks as agents of the Bank of Bengal. It has for a long time been clear that in addition to what has already been done in the way of reform, a radical improvement in the system of administration is still needed, and this will be greatly simplified now that amalgamation has taken place and pecuniary considerations between the three banks have been eliminated. Without going into details, the end in view is to secure that a considerable portion of the work connected with small holdings of securities shall be conducted in the districts in which these are held, and that, in course of time, as the new bank establishes branches in every district, the majority of up-country holders will be enabled to put through at their district headquarters all business connected with their securities.

(*g*) *New Branches.*—With regard to this development and the conditions which have given rise to it, it is not necessary to add much to what I have already said. But such importance attaches

to this portion of the scheme, going as it does to the root of the whole banking problem of India, that it will be of interest to quote the remarks made by the Government of India on the subject in placing the scheme before the Secretary of State:

> The Presidency Banks have now undertaken, as part of the present amalgamation scheme, to establish 100 new branches within five years, and we have every reason to hope that the progressive policy thus initiated will be continued, until at least in every district, and eventually at every town of importance a branch of the Imperial Bank is established. We do not claim that this widespread extension of branches will work a sudden miracle, or will immediately prove itself the long sought talisman to charm the wealth of India from its hoards. We do not look for rapid or dramatic results. But a beginning must be made, and we think that the mere appearance in the district of a bank which conducts Government's Treasury and Public Debt business, as to whose stability there can be no question, and from which local traders and dealers in produce can obtain advances on reasonable terms, must in due course inevitably have an appreciable effect upon the local mental attitude towards banking in general, and in course of time we shall expect to see the new branches of the Imperial Bank attract a large amount of deposits from the general public in such localities.
>
> There are, moreover, other results which may reasonably be looked for from the large increase in the number of branches now contemplated. In those places in which they are already established, the Presidency Banks usually act as bankers of the other local banks. They keep most of the latter's cash, and it is to the Presidency Bank that a local bank turns when it is in difficulties, or when, in a period of tight money, it desires to pledge Government or other gilt-edged securities. The position of the Presidency Bank as the "bankers' bank" has noticeably grown during recent years, and on many occasions have the Presidency Banks rendered valuable assistance in quelling an incipient panic, or in coming to the relief of a local bank which, through no fault of its own, was in temporary difficulties. It cannot, we think, be expected that the number of banks in up-country districts can be largely increased, or can be placed on a satisfactory footing, unless there is at their door a powerful bank to which a sound institution can turn in time of trouble and to which it can look for guidance in its general financial policy. Many of such banks would, of course, engage in business from which a Presidency Bank or its successor must necessarily be debarred, but it is, we think, of great importance that they should have behind them an institution on which they can rely for assistance, and which will form the solid background necessary for the healthy development of the various forms of banking—agricultural, industrial, and ordinary joint stock—of which this country is

admittedly in need. For such development, moreover, an equal necessity is a sufficient supply of men trained in modern methods of banking. The mere staffing of a large number of new branches of the amalgamated bank will necessarily involve the training and employment of Indian agency to a very much greater extent than at present, and the demand for and training of such men by the Imperial Bank should have a valuable influence in stimulating their supply for other banking institutions, just as the requirements of our Public Works Department have undoubtedly stimulated the growth of the engineering profession in India.

A further and almost equally important result which we anticipate will follow from the establishment of the new Bank and from the multiplication of its branches is substantial increase in the assistance given by it to the internal trade of the country through its relations with the indigenous banking system. The extent to which the Presidency Banks already help to finance the internal trade of India by their purchases and re-discounting of internal bills of exchange, known generally as *hundis*, at their head offices and branches, is not perhaps always realised. The shroffs, mahajans, chettis, and others, who, either directly or by their relations with smaller "bankers" of the same kind, largely finance the movement of produce and of important articles of commerce such as piece-goods in the up-country markets, rely to a very great extent upon assistance from the Presidency Banks when, in a season of active trade, their own capital is fully employed. On some occasions, for example, the amount of *hundis* held by the Banks of Bengal and Bombay has exceeded a third of their total advances, and during the busy season the proportion is rarely less than a quarter. The connection of the Presidency Banks with up-country trade is thus very close and intimate. By the rates which they charge on the discount of *hundis*, and by their willingness or refusal to extend their commitments in that direction they can profoundly influence the provision of credit and money rates in the up-country bazaars. It is clear that by the ramification of its operations through a largely increased number of branches and by its ability to employ more funds in the discount of *hundis* and similar bills, the amalgamated Bank will be able to irrigate the channels of internal trade to a substantially larger extent than is at present possible.

12. The above remarks will, I hope, be sufficient to give a general idea of existing banking conditions in India, the circumstances which have caused the constitution of the new bank to assume its present shape, and the general sphere of its activities and the character of this business assigned to it. To illustrate the details and volume of the latter, a recent weekly statement is reproduced here. For the reasons already mentioned (par. 11

(*a*) above), the statement does not yet show as regards capital and reserves the position as it will be when the payments of capital already called up have been completely made:

Statement of the affairs of the Imperial Bank of India on the 18th March, 1921.

LIABILITIES.	RS. (000's).	ASSETS.	RS. (000's).
Subscribed capital	7,23,60	Government securities ..	11,75,04
Capital paid up	4,62,15	Other authorised securities under the Act	1,40,11
Reserve	3,53,84	Loans	16,42,68
Public deposits	4,01,56	Cash credits	22,11,06
Other deposits	74,25,37	Inland bills discounted and purchased	9,67,74
Loans against securities *per contra*	—	Foreign bills discounted and purchased	79
Contingent liabilities ..	—	Bullion	12
Sundries	38,65	Dead stock	2,06,57
		Liability of constituents for contingent liabilities *per contra*	
		Sundries	17,90
		Balances with other Banks..	34,91
			63,96,92
		Cash	22,84,65
	86,81,57		86,81,57

The above balance sheet includes:—

	£		
Deposits in London	9,700	Percentage	29·04
Advances in London ..	33,800	Bank rate	6%
Cash and balances at other banks in London ..	218,920		

13. It will no doubt be observed that the sphere and functions of the Imperial Bank of India do not coincide with those of a Central Bank under the strict definition of such an institution in countries where a highly developed banking system and a central discount market are in being. In such conditions the ideal to be followed in framing the constitution of a central bank is admittedly mainly that of a bankers' bank, entrusted with the powers of the note issue in addition to other Government business, but in various other respects strictly limited in its functions.

But, as I trust I have shown, conditions in India have been such as to necessitate evolution on other lines. The problem to be met differs, for example, widely from that which faced the framers of the Federal Reserve system in the United States, where many thousands of banks were already in existence, and where it remained merely to shape the keystone to fit the arch.

In India the complete foundations have still to be properly laid and we have to build up from the base.

It would be premature also to attempt to forecast the lines which banking development in India will now follow. As has been seen, the policy with regard to the administration of the note issue and of the London remittance business of the Government has been left for future decision. It is probable that, in the event, advance will, as elsewhere, continue to be guided by the forces of natural evolution and shaped by the custom and traditions which the new bank may be expected, as time goes on, to bring into being.

H. F. Howard

THE SOUTH AFRICAN RESERVE BANK

By the passing in the Union of South Africa of the "Currency and Banking Act, 1920," in July of last year, the foundations have been laid for the establishment of a Central Reserve Bank. Prior to the coming into force of this Act, the Banking organisation in South Africa rested upon the laws of the various provinces which now form the Union. These laws are more or less antiquated, and are far from adequate to meet the needs of a country whose agricultural, industrial and commercial development is making rapid progress. The banking organisation has grown up in a haphazard fashion, and, although widely differing from it in many of its details, is in its fundamental principles very similar to the system of decentralised banking reserves as it obtained in the United States before the passing of the Federal Reserve Act.

The inefficiency of the system is generally recognised. Its essential features are that banking reserves are scattered, each Bank holding its own reserves. Deposits are as a rule employed in loans by way of overdraft, and to a minor extent in the purchase of bills, while short-term loans are made to the Stock Exchange. Practice has sufficiently demonstrated that overdrafts and loans to the Stock Exchange cannot, in times of a threatened crisis or even of acute stringency, be readily turned into cash, and cannot therefore be relied upon as a reserve in such circumstances. The calling in of loans at such times is only apt to precipitate a crisis. Commercial bills without a discount market—and a discount market cannot exist without a central bank—are a lock-up till maturity, for they cannot be readily converted into cash when the need for it arises. It follows that the only asset which in a crisis can be depended upon as a reserve is the actual cash held by each of the Banks. No bank can look beyond its own reserve at such a time, for it can only increase it under that system by drawing upon the reserves of its competitors.

Before the passing of the "Currency and Banking Act, 1920," the right of note-issue rested with the commercial banks, and

was governed in the Cape Province by Act No. 6 of 1891, requiring bank-notes to be covered by the deposit with the Treasury of Government securities taken at their par value, the notes being legal tender and redeemable in gold; in the Transvaal by Law No. 2 of 1893, requiring the banks to hold in coin in the Transvaal one-third of the amount of their notes in circulation, and limiting the total issue of each bank to its paid-up capital, the notes being redeemable in gold; in the Orange Free State by Ordinance No. 20 of 1902, containing provisions similar to those of the Transvaal Law; while in Natal no statutory provision exists in regard to note issues.

It is generally accepted that the two functions of commercial banking and of note-issuing should not be performed by the same institution. The commercial banker—whose aim is mainly to make profits for his shareholders and expand his business—cannot be relied upon to exercise as sound a judgment in the matter of the expansion and contraction of the bank-note currency in accordance with the needs of the country as an institution which is not concerned with the everyday business of the country and is not mainly run for profit. The multiplicity of note-issuing banks without a responsible body to control their issues makes a uniform policy in the matter of currency creation practically impossible.

The principal functions of the Central Banks of Europe are not defined by legislation. They are the result of many decades of experience, and have undergone modifications from time to time, through a process of evolution, to meet changing requirements. Any law for the establishment of a Central Bank should have regard to such changes becoming necessary; but, while giving this elasticity, it should nevertheless lay down the fundamental conditions which experience has proved to be essential for the successful functioning of a Central Bank, as the banker of the banks and as the guardian of the country's credit. It must especially be in a position to helpfully intervene in times of stress by extending credit liberally.

The South African Reserve Bank—the name of the Central Bank which derives its charter from the "Currency and Banking Act, 1920"—is a private institution with a capital of £1,000,000 sterling. This is to be subscribed as to one-half by the banks doing business in the Union, while the remaining half is to be offered for public subscription. Only such portion of the issue as is not taken up by the public will be subscribed from public funds.

History furnishes abundant proof that the control of central banking institutions is more soundly exercised by private citizens than by Governments. While no governing body of private citizens would be able to withstand the moral pressure brought upon them by their Government in a national emergency in favour of an unsound currency policy, it is well to establish as effectual a check as possible against the exercise of its "sovereign right of inflation." Care has been taken in the Act to provide that the Government nominees on the Board of the Reserve Bank shall be in the minority. It is to consist of eleven members, of whom three (experienced in banking and finance) are appointed to represent the shareholding banks, three (who at the time of their election must be actively engaged in business) are to represent commerce, agriculture and industry, and three are appointed by the Government. The Governor and Deputy-Governor (who shall be persons of tested banking experience) are appointed by the Governor-General, and are to devote their whole time to the business of the Bank, and hold office for five years.

The conduct of affairs of a Central Bank should, as far as possible, be uninfluenced by political currents, and the Act provides that no person shall hold the position of a Director of the Bank who is a Member of either House of Parliament or of a Provincial Council. And it should also not be unduly influenced by members of the banking community, for a Central Bank often has to exercise a restraining influence upon the Commercial Banks. Although these will subscribe for half the capital of the Reserve Bank, their representation on the board is, as abovementioned, limited to three members.

The business of a Central Bank should not be run mainly for profit. Its policy should be directed primarily to upholding the credit of the country, and to preparing for helpful intervention in an emergency. Dividends should therefore be limited to a reasonable return on its capital, and adequate provision should be made for building up substantial reserves, especially in the early years. The Act conforms to these principles by laying down that a cumulative dividend at the rate of 6 per cent. per annum is to be paid to the shareholders, and that any surplus is to be allocated to a reserve fund until that fund is equal to 25 per cent. of the paid-up capital. Thereafter, until the reserve fund is equal to the paid-up capital of the Bank, one-half of the surplus is to be allocated to the reserve fund, one-quarter to the Government, and the remaining quarter—but not exceeding

4 per cent. on the paid-up capital—to the shareholders. If this remaining quarter exceeds the amount needed to pay the additional 4 per cent. dividend, the excess falls to the Government. When the reserve fund is equal to the paid-up capital of the Bank, the surplus resulting after payment of a dividend of 10 per cent. to the shareholders goes to the Government.

A provision of a somewhat unusual character, having regard to the practice of Central Banks in Europe, has been embodied in the Act, which provides that the Bank may appoint agents, and, with the consent of the Treasury, also establish branches and local committees in places outside the Union. The extensive and intimate trade and financial relations of the Union with this country make it particularly desirable that close relations are established between the Reserve Bank and the Bank of England. An agency of the former established in London seems the most appropriate way of achieving this. Great benefit should accrue to both countries from an intimate collaboration of their Central Banks.

The character of the Reserve Bank's business must be of the soundest, and should be concentrated upon financing the trade and industry of the country in times of stress. The Act limits its powers to discount bills to genuine commercial paper, bearing at least two good signatures, of a currency not exceeding ninety days, but relaxes the provision as to duration in the case of agricultural bills. These may have a currency not exceeding six months, but the Bank's holding of such paper is not to exceed 20 per cent. of all its discounts. The rates at which the Reserve Bank will discount the various classes of bills are to be published from time to time.

Loans by the Bank are to be confined to advances against the security of (*a*) stocks, debentures or bills of the Union Government, or of a local authority in the Union which have not more than six months to run; (*b*) gold coin and bullion, or the documents relating to the shipment or storage thereof; and (*c*) Bills of Exchange and bankers' acceptances which are eligible for discount by the Bank as mentioned above. Apart from being permitted to invest its paid-up capital and reserves in securities of the Union Government or other Governments having not more than two years to run, the Bank's power to invest its funds is limited to the purchase of debentures, bonds or bills of the Union Government, and of local authorities in the Union which have not more than six months to run.

The Bank is debarred from engaging in trade or having an

interest in any commercial, industrial or other undertaking, and from advancing money on mortgage, making unsecured advances, drawing or accepting bills except on demand, and allowing interest on balances on current account. It is empowered to hold bills and balances on places abroad, a provision which is designed to enable it to meet sudden but temporary demands for exchange. Violent fluctuations of exchange due to seasonal requirements would by these means be avoided or mitigated.

The Act confers upon the Bank for a period of twenty-five years the sole right to issue bank-notes in the Union. Its note issue is to be secured to an amount of not less than 40 per cent. in gold, or gold specie, and as to the remainder in commercial bills of the character above described, while it will have a first charge on all the assets of the Bank.

To give the necessary elasticity to the note-issue in times of stringency, a provision is embodied in the Act which authorises, subject to the consent of the Treasury, the suspension of the reserve requirements, for a period not exceeding thirty days, renewable from time to time for periods not exceeding fifteen days on the following conditions: In respect of the amounts by which the reserve against notes falls below the minimum requirements, a graduated tax is imposed at the rate of 1 per cent. per annum when the gold reserve is less than 40 per cent., but not less than $32\frac{1}{2}$ per cent., rising by $1\frac{1}{2}$ per cent. per annum upon each $2\frac{1}{2}$ per cent. decrease by which the reserve falls below $32\frac{1}{2}$ per cent. Coupled with this additional tax is an obligation compelling the Bank to increase its rate of discount by a percentage which is at least equal to the percentage of tax levied.

In order to allow the commercial banks who now have the right to issue bank-notes to adjust themselves to the new conditions, and to permit the South African Reserve Bank to set up its organisation, the commercial banks are empowered for a period of twelve months to continue issuing their own notes, but the reserve requirements in respect of the issue of notes, other than those under the Cape Act, have been increased to a minimum of 40 per cent. in gold specie. Moreover, any excess circulation beyond that of the 31st December, 1919, bears an additional tax at the rate of 3 per cent. per annum. When the Reserve Bank is in a position to issue its own notes after this period of twelve months has elapsed, the note-issuing commercial banks will retire their notes, and provisions are embodied in the Act which will probably effect this retirement within a period of two years.

In addition to the gold reserve laid down by the Act in respect of its note issue, it provides for the holding of a metallic reserve in gold or specie of 40 per cent. of its deposits and bills payable.

Every bank transacting business in the Union is required to establish and maintain with the Reserve Bank reserve balances equal to at least 13 per cent. of its demand liabilities (other than notes) and 3 per cent. of its time liabilities in the Union. Again, in order to permit the commercial banks to adjust themselves more easily to the new conditions, the requirements in respect of demand liabilities in the Union (other than notes) are allowed for a period of three years to fall short by 3 per cent., so that their reserve balances with the Reserve Bank during that period need not exceed 10 per cent. of their demand liabilities.

The Reserve Bank is to publish weekly a clear statement of its position, and the form in which this publication is to take place should make it easily understood by the public.

These are the salient provisions of the Act so far as it deals with the constitution of the South African Reserve Bank. They were the subject of an exhaustive and close scrutiny first by a Committee set up by the Union Government, then by a Select Committee of the Union House of Assembly, and finally by the House itself. The Act was passed by a substantial majority, and it may fairly be said that it has received almost general approval by those who have studied the question. There was at first a very natural reluctance on the part of the Commercial Banks to recognise its advantages, for they were called upon to relinquish valuable rights, such as issuing their own notes, while they no doubt also felt that the Act curtailed their former freedom of action. They nevertheless, in the end, frankly acknowledged its virtues. But there are a few critics who condemn the system which the Act sets up because they profess to see in it an instrument which fosters inflation. They may be reminded that there is no credit organisation in existence which is capable of automatically and completely preventing inflation, that all such organisations rely to a greater or lesser extent upon the wisdom and experience of those responsible for their management to prevent such transgression, and that any credit organisation must permit of sufficient elasticity to fulfil the purpose for which it is formed, *i. e.* to serve as the handmaid of trade and industry in all their ever-changing requirements.

But, broadly, inflation in its true meaning does not arise where currency and credit are based upon actual wealth in the

form of gold and commercial bills of exchange representing goods, and in a ratio which experience has shown to be safe, viz. 40 per cent. of gold and 60 per cent. of bills. It can only arise where currency and credit are allowed to be created, not on actual wealth, but on promissory notes redeemable out of the production of wealth of the future, such as Government securities and accommodation bills. The Act provides safeguards which seem to go as far as is prudent to guard against undue expansion of currency and credit. In the light of the experience gained by the Central Banks of Europe, the South African Act should be capable, under wise management, of adequately fulfilling the functions for which it was set up. It begins its career under favourable auspices. The business and banking community of the Union and its Government are accustomed to prudent and sober methods, and there is little doubt that the Directors of the Reserve Bank, appreciating the responsibility which rests upon them, will guide its destinies on sound lines, especially under the able and experienced leadership of its first Governor, Mr. W. H. Clegg, lately Chief Accountant of the Bank of England, whose thirty-five years' training in the atmosphere of that institution fits him particularly well to set the wheels going of the South African Reserve Bank.

HENRY STRAKOSCH

THE REPARATION PROBLEM[1]

THE discussion concerning German reparation has passed through various phases. In the first stage, thought was centred on the question of how much Germany owed. Statistics were compiled to show the enormous havoc and ruin wrought by the German armies, and the question was debated as to the values in terms of which this damage should be computed. This phase then gave way to a second, in which the crucial question was deemed to be Germany's capacity. This, it was said, was the limiting factor in reparation. Germany should pay to the full of her capacity, the only question being what that capacity was.

Thought is now tending toward a third phase of the problem, which I trust will be the final and conclusive phase, namely, how much payment is the world willing to accept from Germany?

I, myself, have always believed that Germany's capacity to pay was very large. An industrious and intelligent population of sixty million persons, with a magnificent industrial equipment, can perform prodigies once it has a proper incentive. The United States by such an effort during the war period built up external credits at a rate which probably reached $8,000,000,000 per annum. This was done, to be sure, at a period of unusually high prices; but let us reduce our accomplishment by half, and again halve the result as allowance for our greater population and greater natural resources. Even this fractional remainder represents $2,000,000,000 per annum, a sum as large as any which it has been seriously suggested that Germany should pay. It is on account of such considerations as these that I have had little concern as to Germany's capacity. At the Peace Conference I was favourable to a higher indemnity than many of my associates; and I have no sympathy to-day with the German assertion that the recent Paris programme involves an impossible economic effort. I have, however, recently been much impressed

[1] An address delivered at the 33rd luncheon discussion on foreign affairs under the auspices of the League of Free Nations Association, Hotel Commodore, New York City, March 12th, 1921.

with the difficulty in finding economic values in terms of which the world will be willing to accept payment from Germany. It must not be forgotten that paying is a two-sided transaction: Every payment involves the passage of something of value from one person to another. There must be something to give; it is equally essential that there be some one to receive.

Now, we have had, to date, nearly two years' experience with the actual operation of the Reparation Clauses of the Treaty. The final amount which Germany is to pay was, to be sure, not finally fixed, but the Treaty did fix an initial payment of five billion dollars, to be paid by May 1st, 1921, and various clauses of the Treaty fixed the manner in which this payment should principally be made. These provisions, which are embodied in annexes to the Reparation Clauses, deal with the German assets which at the time of the Peace Conference the Allies selected as being those which they were particularly desirous of receiving from Germany. So insistent were they upon the right to receive reparation in these particular ways, that they demanded specific treaty provisions giving them, in effect, an option upon the German commodities in question. These economic values which the Allies were so keen to secure from Germany in payment of reparation were ships, coal, machinery and reconstruction material, chemicals, and dyestuffs, and German labour; and I think it may be of interest to you, and illustrate the point I wish to make, if we consider the actual experience of the Allies with these forms of payment.

Let us first consider ships. At the time of the Peace Conference, it would have seemed incredible that the Allies would not want, by way of reparation, all the ships that Germany had or could produce. The shipping clauses of the Treaty were among the most stringent that were drawn. Under them, Germany was to surrender practically her entire merchant marine, and was to construct ships for Allied account at the rate of about two hundred thousand tons per annum.

A day or two ago, I talked with a banker who had just arrived from England, and I asked him about the operation of these shipping clauses of the Treaty which were designed primarily for the benefit of Great Britain. He said that the British Government had endeavoured to sell the German ships, and on account of the lack of demand the offering of these ships had depressed the market price so that those now buying German ships would get them so cheaply that the old-established ship operators whose ships had cost them, say, $60 per ton, would be unable to operate

in competition with the new owners of ex-German ships, and would be compelled to lay up their boats. I believe actually about one million tons of British shipping is now idle. My friend further stated that the result of Germany building ships for British account was to depress the British shipbuilding industry so that labour was thrown out of employment and that capital was being diverted elsewhere. In Hamburg, on the contrary, the shipyards were active and thriving, the German labourers were finding employment, and he prophesied that a continuation of the present situation would mean that in the course of a few years the British shipbuilding industry—one of England's great national assets—would pass away.

It is interesting to observe that the Allied reparation experts have now recommended the abandonment of the clauses of the Treaty which require Germany to construct new tonnage for delivery to the Allies. They further recommend that Germany be relieved from delivering further shipping which was in existence when the Treaty came into force, and even that some of the shipping which she has already delivered be returned to Germany. Certain it is that in future the Allies will not be prepared to accept any large number of German ships by way of reparation.

Let us pass on to coal. In coal there is probably one German asset which can be employed in reparation up to the full extent of Germany's capacity. This is certainly true for the time being, so far as France is concerned. Whether it will remain true after the Lens coalfields are restored and German coal comes into competition with French coal, will be another question. Even to-day, however, the problem of coal deliveries from Germany is by no means as simple as it seems. Cheap domestic coal and a steady export demand constitute one of the most important sources of England's economic strength; and England—as a belligerent which herself suffered great loss—has very definite views, and a right to express them, with regard to Germany's reparation payments in coal. If France gets great quantities of free coal from Germany, it means that French industry secures a marked advantage over British industry in the conversion of raw materials into finished products. It means that the British coal export trade will fall off. From the moment when the coal clauses of the Treaty were first proposed until the present day, there has been a constant divergence of views between Great Britain and France as to the amounts and prices for coal received by France from Germany. It has been

England's constant effort—and, from her point of view, an entirely proper effort—to prevent France getting coal at a basis which would make it cheaper than British export coal. I surmise that the Spa arrangement under which France undertook to make a gold payment to Germany for German coal was primarily due to British influence and her desire to prevent France getting German coal at a price much below that of British export coal.

However, coal may be accepted as one medium of direct reparation which may be taken by the Allies to the value of, say, $100,000,000 a year, for the next three or four years. Once, however, the French coal-mines are reconstructed, it must be recognised that France's attitude towards German coal will be the same as the attitude of all the Allies towards German economic values which are directly competitive with their own industries.

Under the machinery and the reconstruction material clauses of the Treaty, all of the Allies have had for nearly two years an option, within reasonable limits, on all such machinery and reconstruction supplies as Germany's great industries could produce. At the time when these clauses were being drawn, M. Loucheur, now Economic Minister in the Briand Cabinet, stated frankly to me that these clauses were sought primarily for political effect. He stated that he was vigorously opposed to permitting Germany to supply the machinery and equipment to be reinstalled in the devastated regions. This, he said, would be to give Germany a stranglehold on the economic life of Northern France, as once German machinery was installed, all replacements and spare parts would have to be supplied by Germany, and orders for enlargements and new installations would similarly go to Germany. That this statement correctly represented the French viewpoint, is shown by the figures for agricultural and industrial machinery which Germany has supplied to date. A recent report of the Reparation Commission showed that up to October, 1920, France had not accepted one single piece of machinery from Germany under Annex 4 of the Reparation Clauses. Belgium has taken a few thousand dollars' worth only. Thus although France, Belgium and the other Allies have for many months had the right to get free of cost all such German machinery as they wished to order, yet they have in practice availed of these rights only to the most insignificant extent.

With the dyestuffs situation, we are, I believe, all generally familiar. During the war the Allied Governments encouraged the

development of national industries in dyestuffs. Since peace, practically all of the Allied nations have taken steps to prevent the competitive import of German dyestuffs, which would destroy their new-born domestic industries.

There remains to be considered, labour. The French originally insisted, over a good deal of objection from the Americans, that they must have a treaty right to German labour for the purpose of actually restoring the devastated regions. Elaborate provisions were drafted requiring Germany to provide up to 500,000 labourers to work in the devastated regions under the direction of an inter-allied commission. These provisions were eliminated at the last moment, as savouring too much of slavery. But Germany offered voluntarily to supply such labour, and I had the opportunity of participating in numerous conferences between the Reparation Commission and the German delegates when we sought to effect an arrangement whereby Germany could make reparation in this manner. After long and detailed discussion, the French Government was compelled to reject reparation in this form, on account of the objections raised by the French labour unions to the importation of foreign labour.

I should mention another form of reparation which was proposed by the Germans in their counter-proposals made in Paris in May, 1919. They offered, by way of reparation, to give the Allies investments in German industrial enterprises. This offer was not accepted, because it was regarded as a device to insure the Allied peoples becoming so bound up in the internal affairs of Germany and so sympathetic towards the prompt economic revival and prosperity of Germany, that the Allied Governments would be embarrassed in their political relations with Germany.

This review will, perhaps, give a new appreciation of the complexity of the reparation problem. We have considered the use of German labour outside of Germany and have seen that it has been rejected. We have considered the use of German labour and materials inside of Germany to produce goods which will then be exported from Germany. We have seen that these arrangements in actual operation have not been satisfactory to the Allies, and that the amount of reparation in this form which they will accept will probably be very limited. We have considered the taking of ownership of what is located in Germany and not physically capable of removal. We have seen that the Allies are opposed, in principle, to doing this on any large scale.

As to all of these matters, we have not speculated. We know the actual attitude of the Allies as developed and officially

expressed by action during twenty months of experimentation. The summary of our conclusion is that the Allies are unwilling to take directly from Germany economic values in any large amount.

Now, if the Allies are unwilling to accept from Germany any large amount in values which Germany has to tender them directly, how can the greater reparation demands be met? The remaining possibility for us to consider is a triangular operation whereby other countries than the Allies will buy German economic values, the proceeds thus accruing to Germany therefrom to be transferred to the Allies in terms of a currency which is of such value that it can readily be converted into sterling, francs or lira, as the case may be, to meet the Allied reconstruction and pension budgets.

Now, when we say that the Allies themselves will not accept direct reparation from Germany in any large amount, but that they are counting upon the rest of the world doing so, what is really meant by the phrase "rest of the world" is the United States. There are, to be sure, the European neutrals and South America, but the combined buying power of these nations is by no means large and the currency of some of them is materially depreciated. It is the United States and the United States alone which has a population of sufficient numbers and wealth, a standard of living sufficiently high, and currency at such a premium as to constitute a medium for the payment of large reparation through such a triangular operation as I describe. If *we* will pay our American dollars for German goods, for German services, for German investments, then the Allies will be glad to accept these dollars. In this way alone can Germany pay annuities running into such figures as $1,500,000,000 a year.

But will America complacently play this rôle? I believe not. We have had some experience with receiving German ships. For upwards of two years the *Leviathan* has lain tied to her dock, while many thousands of dollars are expended to prevent the rats from consuming her interior. We have had our experience with German chemicals and dyestuffs, and are at present rigorously preventing their importation under the only remaining exercise of war control, pending the passage of legislation which will permanently exclude them and protect our new dyestuffs industry. The President has just recommended an increase in our tariff, designed to prevent competition from foreign labour maintaining a lower standard of living and unquestionably the effect of this tariff will be to exclude to a great extent textiles

and other imports which Germany is peculiarly adapted to supply.

I do not mean that we will not buy any German goods, or make no German investments. There will, of course, be a normal trade movement. Germany will be our customer for large values of food and raw material, and we should be prepared to buy of Germany up to a point where Germany can pay for her purchases from us. What I refer to is a great and abnormal receipt of German values sufficient to give Germany a favourable balance of several hundred million dollars a year, which can be transferred to the Allies.

The Allies during twenty months of practical experience have come to a realisation of the havoc which would be caused by receiving a great quantity of economic values direct from Germany. Their present attitude is perfectly clear to any one who will carefully observe. I see no reason why our attitude will not be the same. I think it safe to assume that the United States is not prepared to offer herself as a medium through which German reparation will be paid, with all that this would involve in the flooding of this country with German goods, with a consequent depression of American industry and loss and injury to both capital and labour.

I have not spoken of Germany making reparation by payment in "money." Germany has practically no gold, which is the only universally recognised monetary value. She has paper marks. These marks, however, are worthless except as used in Germany. They may be used to buy goods in Germany; they may be used to hire labour in Germany; they may be used to invest in Germany. Other than this, they have no value. And the very low estate to which the German mark has fallen is evidence confirming the conclusion already reached that the world does not want that which German marks can procure, namely, German goods, German labour or German investments.

It is such considerations as these which lead me to doubt the practicability of the recent demands upon Germany. These demands probably do not exceed Germany's capacity. But capacity to give is immaterial unless there is a corresponding willingness and capacity to receive. It is from this latter point of view that the demands seem faulty.

It should not be inferred from this statement that I approved of the German course at London and disapprove of the Allied action on the Ruhr. This action is due not to Germany's failure to accept literally the demands made, but is, rather, due to the

impression of evasiveness and insincerity apparently created by her counter-proposals. It may well be that severe measures are required to bring about a proper German attitude. This is more to be desired than gold. But let us hope that in the meantime the Allies will carefully re-examine their demands in the cold light of reason, so as to be assured of a formula which, when properly accepted by Germany, will actually achieve a permanent solution.

I believe that our difficulty in solving the reparation and like post-war financial problems is perhaps due to a failure to recognise that the almost fantastic balance-sheets that have resulted from the war are but partial records of extremely violent and wasteful economic forces that have been at play. The Allied indebtedness to us of some $15,000,000,000 records the fact that the industrial efforts of the United States were intensely concentrated in pouring into Europe a vast flood of munitions and equipment, food and transport, which were then consumed in the fiery furnace of war. To reverse what then occurred, and to require the Allies to pour back upon us an equivalent stream of commodities will be more destructive to our labouring and industrial tranquillity than war itself.

The German debt to the Allies of some $20,000,000,000 records the vast economic wastage of war; yet for Germany to deluge the Allies with an equivalent in economic values will be to set up almost equally destructive processes.

These vast debts could never have come into being under normal conditions. No more can they be fully paid under normal conditions. They can only be fully paid by economic efforts as violent and as destructive as those which were required to give them birth. A hurricane has swept the world. We survey with grief the wreckage which lies in its train. But let us not commit the capital error of believing that all will be righted by another hurricane, if only it blows from a different direction.

I do not conclude that all the loss and damage and debt of the war must lie where it has fallen. Much can and must be done by Germany in satisfaction of her financial obligations to the Allies. Much will be done by the Allies in satisfaction of their debts to us. But we cannot deal with these problems with passion; we must not invoke extreme and violent economic efforts. Let us choose carefully the mode and the moment, lest we add venom and not balm to the gaping wound that is draining the vitality of modern civilisation.

JOHN FOSTER DULLES,

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POPULATION AND CIVILISATION

THE question which I have suggested somewhat light-heartedly for our consideration to-night[1] is whether an increase in the population at the present time would necessarily result in a lowering of the standard of our civilisation? This at first sight seemed to me to be a fairly simple subject for discussion; but the more I have studied it, the more complex does it appear to become. In any case, little more can be done in the time available than to indicate in the most general terms the different lines of thought which have to be pursued. Yet I feel that some wide question connected with population ought to be considered by this Club during the course of this year, the centenary of our birth; if only to remind ourselves that Malthus was one of the small group of our founders. Few writers have been more often or more seriously misrepresented; but as time goes on he will, I believe, come to hold a more and more honoured place in the list of pioneer explorers in social matters connected with population.

In order to decide whether civilisation is more likely to advance or to recede under any conditions, we ought perhaps to begin by defining that term. Will any one here present frame a neat and satisfactory definition which will be generally acceptable? If so I shall be grateful, for I have quite failed to do so. There is, indeed, only one point connected with the measurement of civilisation to which I should like to call attention; a point which can be illustrated by reference to Greece in the days of her pre-eminence. Ought we to attempt to estimate that ancient civilisation only by holding in view the extraordinary number of men of genius who then made their appearance; or only by striving to realise the condition of the slaves and of other debased types then existing; or by some method of judging by the average condition of the whole population? If we consider what would have been the result had that country been endowed, not with the actual social organisation which she did possess, but with

[1] At a meeting of the Political Economy Club, March 2, 1921.

some kind of organisation giving rise to the same average civilisation, combined with absolute equality in all things between all classes, would it not have been that no Platos or Aristotles would have made their appearance on earth? And would not that have been an immense loss to all subsequent generations? There are, it must be admitted, solid arguments in favour of what may be described as an aristocratic method of measuring civilisation; but to judge by average conditions is probably on the whole best, and it is at all events mainly from that point of view that I shall attempt to deal with these questions to-night.

Our civilisation, no doubt, depends on a number of variables, none of which can be studied wholly independently of the others. These variables may, I suggest, be grouped under three general headings, namely: (1) wealth, or the accumulation of material things; (2) stock, or the inborn characteristics of the people; and (3) tradition, granted that the meaning of this term may be enlarged so as to include all that which, springing from previous generations, is received by individuals from outside through their minds. It is with regard to the first of these three variables, namely, wealth, that I am especially anxious to hear the opinions of this Club, for it raises questions with which I am incompetent to deal.

If we consider the case of an imaginary human being who is compelled by circumstances to devote his whole available energy to the search for food, we see that such a man must remain a naked savage as long as that state of things lasts. A certain amount of surplus time and energy, after obtaining the necessaries of life, is the first requisite for civilisation of any kind. This surplus energy can only be utilised either in the creation of wealth, or by taking advantage of any available leisure. And as to available leisure, does not the possibility of making good use of it depend in large measure on there being an available backing of wealth? If so we quickly jump to the *primâ facie* conclusion—a right conclusion, I believe—that civilisation depends largely on wealth.

It may possibly be said that this is a despicably low and materialistic view of civilisation; that in such matters we ought to look only to beauty, truth and goodness; and that these absolute values are all entirely independent of wealth. I wish that it were so. To pursue this subject would be to tread a philosophic path for which time is not available, and I must confine myself to a single comment. If we may be allowed to regard the Royal Society, the Royal Academy, and the Church

as being respectively custodians of truth, beauty and goodness, what would these highly honoured trustees say if we were to deprive them of all their worldly goods? Would they all cry out with one voice, "No matter, for goodness, truth and beauty are in no way dependent on wealth"? On the contrary, they would protest vigorously, because every corporate effort to promote these primary values is inevitably more or less costly. Wealth cannot be ruled out of consideration on moral grounds.

Again it may be urged that there is an optimum level of wealth; or, in other words, that if the national dividend were to rise above a certain figure, a tendency to lower the standard of our civilisation would thus be produced. Though arguments in favour of this view can certainly be adduced, and though a sudden increase of riches may be very damaging to character, yet my opinion now is that a steady average level of wealth cannot be too high. Of course we condemn the man who, for example, spends £500 on buying a fur coat; for we feel that he might have made far better use of his wealth. But if, as the result of some general cause reducing average wealth, such a man had been induced to expend only £200 on his coat, his action would not thus have been made one whit more moral. He would, however, in nearly all cases also have been induced to spend less on the things which do make for civilisation. Indeed it is generally the highest aims which are first sacrificed; for the average man sticks to his beer, his baccy, and his betting to the last. Wealth is like a bright light, showing up rather than increasing all qualities, bad and good, and wealth is on balance a factor always making for progress. Even if this be denied as a universal proposition, yet few will assert that a further dose of poverty would at this moment improve the nation as a whole.

Though we may decide to look mainly to average wealth in this discussion, yet questions connected with its distribution cannot be altogether neglected; for civilisation depends on contentment, and contentment depends on distribution. If we ask ourselves what would be the influence of an increase in population on distribution, we shall, I believe, come to the conclusion that it would be harmful. An increase in numbers would produce no immediate increase of capital, and economic analysis indicates that an increase in labour without a corresponding increase of capital tends to diminish the proportion of the total wealth which goes to labour. This is probably in the main a transient effect; but I can see no way in which the advocates

of increasing populations can get any comfort by appealing to the economic laws governing distribution.

Our main inquiry, however, should be in regard to the more direct effects of wealth on civilisation. And here I wish to allude to the only serious error made, as I believe, by Malthus; an error which led him and many of his followers to fail fully to realise all the harm which may be done by an increase in population long before actual want is felt. His mind seems to have been almost exclusively fixed on food and the other necessaries of life, whereas we ought to hold in view all the commodities which make for civilisation. Malthus said that the happiness of countries depends "on the proportion which the population and the food bear to each other."[1] Should we not rather say that civilisation depends on, amongst other things, the average production per head of all useful goods? When surveying the production of wealth in connection with civilisation, even if we could do no more, we should certainly like to exclude all trades not actually beneficial; such as those connected with drink and book-making. This is, however, impracticable, but since there is a general tendency for the production of all classes of goods to change simultaneously, we shall introduce no great error by making the answer to our inquiries concerning the correlation between wealth and civilisation depend on whether an increase in numbers would or would not increase the national dividend.

If this conclusion be accepted, and if mere transient results be neglected, is this not equivalent to saying that, in so far as wealth is the factor regulating civilisation, all we have to inquire is whether production is or is not now on the whole obeying the law of diminishing returns? There are many here present far more capable of answering this question than I am, and I beg them to answer it. It must be remembered that we are not inquiring whether average wealth would continue to increase in spite of an increase in numbers. Improvements in the process of manufacture and existing accumulations of capital might by their momentum continue for some time to come to produce progressive results in spite of many unfavourable conditions. We must not make the mistake of the golfer who so often thinks that a good round is due to a new club; whereas in such circumstances success is more often achieved in spite of the change. The highest possible state of human welfare should be our aim,

[1] *An Essay on Population*, Book II., Chap. XIII.

and the sure prospect of an advance in wealth should not necessarily satisfy us. In fact it is only the effect which an increase in numbers would *in itself* produce on production which should here be held in view.[1] My own opinion, which is of little value, is that production is now in the mass obeying the law of diminishing returns. From this it would follow that any increase in numbers would ultimately result in a *relative* reduction in wealth per head, and, if my previous conclusions be accepted, in a consequential lowering of the standard of our civilisation in comparison with what it would have been had the population remained stationary.

The second of the two variables on which, it is suggested, civilisation depends, is stock or racial qualities, this being the variable which in truth interests me most. And in connection with this variable also, the name of Malthus may be appropriately mentioned; for it would have taken but very little pressure to have made him become a keen eugenist. This is proved by his declaration that it does not "by any means seem impossible that, by an attention to breed, a certain degree of improvement similar to that among animals might take place among men;"[2] a statement which, it is true, he then proceeded to water down, as so many have done since his day, with the aid of a ponderous joke. With man as with animals, what is obviously needed is that the more highly endowed groups should be also the more fertile. It is now generally admitted that it is the poorest sections of the community which are multiplying most rapidly; and we are thus led to inquire whether this part of the population differs from the average of the whole in racial qualities.[3] This is a question to which it is extraordinarily difficult to give

[1] The answer most commonly made to the arguments here adduced in regard to all three variables is that all that is necessary could be achieved by improvements in environment. But this is no answer; for in any case environment should be improved as much as possible. The question is whether, whilst making all improvements in human surroundings which would be on the whole beneficial, an effort should also be made to increase or to decrease the population. To prove that any suggested improvement of environment would automatically improve the inborn qualities of future generations would only add another reason for its adoption; a reason the validity of which the majority of scientific experts would deny. To prove that a proposed reform would reduce the rate of multiplication of the less fit to the level of that of the more fit, would indicate that that was the reform for which eugenists have been seeking; but the arguments generally brought in support of the contention that such reforms as motherhood endowment would have this effect, seem to me to be fallacious.

[2] *An Essay on Population*, Book III., Chap. I.

[3] See *On the Relation of Fertility to Social Status*: Heron, Dulau & Co., for Univ. of London; and "The Fertility of Various Social Classes," Stevenson, *Journal of Royal Statistical Society*, May 20.

a satisfactory answer; for no way has yet been discovered of directly deciding to what extent the qualities of the slum-dweller are due to his bad surroundings, or to what extent his bad surroundings are due to his inferior natural endowments. But, to quote from Marshall's *Principles of Economics*, "it is probable that the percentage of children of the working classes who are endowed with natural abilities of the highest order is not so great as that of the children of people who have attained or have inherited a higher position in society" (p. 294, third edition). If this be so, and if we accept the teaching of modern science as to the heritability of all natural qualities, it follows that any increase in the population under *existing conditions* will be accompanied by a decrease in proportion to the whole population of persons capable of acting as leaders in thought or as the captains and foremen in industry. Any increase in our numbers must, therefore, now react injuriously on our civilisation, both directly by lowering average natural endowments, and indirectly by causing a diminution of average wealth.

Great efforts ought certainly to be made to verify or to refute this conclusion. As a single example of the kind of investigation which might be further pursued with profit, it may be mentioned that certain elementary schools in London have been examined by the Binet-Simon system, a system especially designed to eliminate as far as possible the influences of environment; with the result that the children in the poorest districts do seem to be somewhat below the average in natural endowments. But whatever might be the final result of such investigations, I cannot doubt that the constant selective transfers now taking place, for example, from the slums into the ranks of the skilled artisan and *vice versa*, must in time cause different standards of natural ability to obtain amongst the different social strata. Such being the case, as time goes on natural efficiency will come to be more and more closely correlated both with the rate of wages and with infertility, even if no marked correlation exists at present.

Lastly, we have to take into account the civilising effect of tradition in the extended sense in which I have used that term, this being the variable to which most people will turn in the first instance. Here the point mainly to be insisted on is that there are laws of environmental inheritance just as there are laws of natural inheritance; for, to adopt Professor Pigou's words, "environments, in short, as well as people, have children."[1]

[1] *Wealth and Welfare*, p. 59.

These two methods of inheritance are moreover in certain respects closely similar in their results, a fact which it took me a long time to realise. To discuss the connection between poverty and stock, as we have just been doing, is in many respects an unfortunate way of approaching this subject; for it is very apt to give rise to both prejudices and misconceptions. Poverty-stricken stock is frequently excellent stock, and were it possible to classify human beings according to the qualities of their homes without reference to their wealth, this would always be a preferable method of classification. Good stock in spite of great poverty always makes for itself homes good in a sense; whilst stock bad in moral and intellectual natural qualities keeps continually falling down into the slums, and is there found dwelling in homes bad in every sense. It is from homes the badness of which is due to the bad natural qualities of their inhabitants that there is such an abnormal output of children. And these bad inborn qualities are not only being continually passed on to future generations by natural inheritance, but the evil habits acquired in these sordid surroundings also keep flowing on to posterity by home contagion or environmental inheritance. Whether we look to stock or to tradition we must conclude that such a multiplication of numbers as is now taking place is likely to be accompanied by a deterioration in the average qualities of the nation. Our final conclusion, therefore, is that whichever variable we hold in view, whether it be wealth, stock, or tradition, we arrive at the same result, namely, that any increase in the population *such as that which is now taking place* will be accompanied by a lowering of the standard of our civilisation, or at all events by a check to any advance which would otherwise be in progress.

Those who investigate a disease should as a rule suggest a remedy; and for the disease of over-population at home we naturally turn to emigration as a palliative. But are not the doors leading to suitable overseas abodes for white men likely slowly to be shut in our faces? If so we must not wait until all means of escape have been barred before facing the situation; for it will be twenty years before many of those born to-day will wish to leave our shores. Then, again, the laws in force in other countries excluding undesirable immigrants tend to become more searching as time goes on, so that the exits for our surplus population, when not closed, will only in future let out our better stock. If our laws concerning immigration continue to be less drastic than those of our neighbours, we shall remain like a

sieve, letting fine material fall out whilst retaining the refuse. The nature and the extent of any injury due to a check on emigration, combined with an increase in numbers, might not be fully felt for many years to come.

If wealth were the only variable to be considered, and if it were entirely independent of the other variables, all that would be necessary to put things right would be to keep down numbers, no matter how. But the construction of the brake to be applied is seen to be of vital importance directly we come to take stock and tradition into consideration. The average fertility of all civilised countries has been greatly diminished in recent years by voluntary birth control; and this control has everywhere been more effectively applied amongst the more prudent classes. Forethought with regard to the welfare of the children is, in fact, the most effective stimulus to family limitation; and those who hold that forethought and certain other desirable qualities producing the same effects are being in any degree passed on to posterity by natural and environmental inheritance, must conclude that birth control is now lessening the output of children likely to be endowed with these useful characteristics, and that consequently the nation of the future will have thus far been injuriously affected by family limitation. Would a more extended use of birth control merely intensify these evil effects? Or would it be possible, by inducing the less prudent classes to follow the example set them by their more far-seeing neighbours, to reverse this process and to make birth control produce effects on posterity in all respects beneficial? These are most difficult questions, which cannot here be discussed; though I should like to be allowed to give my own conclusions in brief. To induce the poorest classes to limit their families in proportion to their poverty would produce results on the health, wealth and contentment of the people of to-day, as well as on the standard of civilisation of future generations, of a highly beneficial kind; but unless the propaganda to produce these results were to be accompanied by strenuous efforts in other directions, including a condemnation of excessive birth control amongst our best stocks, the decline now probably taking place in both the natural and the acquired characteristics of the people would thus be merely slackened and not stopped. To compare our civilisation of to-day with that of ancient Greece is not encouraging; whilst to look forward to actual regression during the next two thousand years would be heart-breaking. We want another Malthus to arise who would avail himself of all the knowledge reaped during

the last hundred years and who would face these intricate problems with the same courage as that displayed by his great predecessor. Such a reformer might, whilst warning the nation of its danger, convince the public that with reasonable forethought and courageous action no alarm need be felt; for if the Government were to adopt adequate measures affecting fertility in good homes and in bad, the doors of hope would be thrown wide open, disclosing a prospect before us of indefinite advancement in human welfare.

LEONARD DARWIN

AN INDEX OF THE PHYSICAL VOLUME OF PRODUCTION

THE *Review of Economic Statistics*, issued monthly by the Harvard Committee on Economic Research, which has now reached the beginning of its third volume, is by no means confined to the construction and analysis of the index-number of General Business Conditions by which it is probably best known. In the five numbers beginning September 1920, an exhaustive estimate is made (mainly by Mr. Edmund E. Day) of the progress of production in the United States since 1899, of which the final summary is given in the January number of this year;[1] the analysis is so interesting that it is proposed to offer a critical account of it here.

The general problem of measuring production and its growth is so difficult that few attempts have been made to solve it in any country. The undertaking of a Census of Production at a single date, in which only the net *value* produced by the services of land, labour and capital is computed, has always presented serious administrative and executive problems, and has involved an arbitrary distinction between material products, such as coal, wheat and cotton goods, and services, whether of transport, dealing, or of professional men or of domestic servants. The nature of these problems can be studied in the General Report of the only published Census of Production in the United Kingdom, that of 1907 (Cd. 6320). It is clearly impossible to obtain a physical aggregate of production not containing the element of value, since we cannot add together a ton of coal, a bushel of wheat, a cow, a barrel of beer, a side of leather, a yard of cotton cloth and a sewing-machine. It is only in the case of raw materials and some partly manufactured or standardised products, such as coal, steel ingots, and unbleached cotton cloth, that we can obtain an approximate physical measurement of the product of a single industry. There is no natural unit for the product

[1] The five parts of the investigation are now issued together in a special number.

of higher stages of manufacture, such as machinery. Nevertheless we may be able to measure a change from one date to another without measuring the aggregate at any period; this, in fact, is commonly done in all the various applications of index-numbers, of wholesale and retail prices, of wages and of consumption. The papers in question extend the method of index-numbers to production.

The primary question in this case is whether the separate series which are combined in such an index-number are together typical of the whole region to be covered (in this case all physical production), and a secondary question is whether the various terms of each series (in this case the quantities of a commodity produced in successive years) are strictly comparable with each other. The answers may be different for the United Kingdom and the United States. Here the main effort of capital and labour is directed to the higher stages of manufacture of a heterogeneous and changing kind, and its products have generally no natural unit. We can estimate, for example, the quantity of wool used in the woollen, worsted, carpet and hosiery manufactures taken together; but it is worked up into so many diverse products, and their natures change so rapidly, that such categories as broad heavy all-woollen cloth and pairs of hose in themselves are of variable contents, and they cannot be extended to cover all products. The change in the total product is not proportional to the change in the consumption of raw material, nor to the apparent change in the production of cloth described in particular terms. If we depended on series relating to raw materials and partly finished products, we should be ignoring the changes in manufacturing processes, and the resulting error would be cumulative. The primary question for us would be answered in the negative; our series would not be typical of physical production as a whole, even if we included series which the secondary question ought to lead us to exclude. It does not appear possible, even if our statistical data were greatly improved, to measure the change of the physical volume of production in this country with any tolerable precision. In the United States, on the other hand, the bulk of raw materials are home-produced, the services of labour and capital are directed to a great extent to the production of those commodities which are for the most part easily graded and measured, and the statistics are more complete; it may be that an index of reasonable accuracy can be obtained at any rate over a short period.

In the estimates before us the basis is formed by the Reports

of the Census of Production in the United States in 1899, 1904, 1909, 1914 for Manufacture, figures for intermediate years being interpolated, and by official Annual Reports for Agriculture and Mining. It is with manufacture that the difficulties most obviously arise. In each census returns were obtained of the quantities of raw materials used, and, where a unit was definable, of the quantities of the products, and the industries were grouped in fourteen classes. Professor Persons has obtained two sets of series, one taking for each industry *either* the raw material *or* the product, the other containing products only. The latter is in the end only used for confirming the former. Since the validity of the calculation depends on the sufficiency of these series it is well to enumerate them. I. Food and kindred products. *Materials :* milk, cream, beeves, calves, sheep, etc., hogs (dressed weight), grain, beets, cane-sugar; *products :* canned vegetables, canned fruits, dried fruits. II. Textiles and their products. *Materials :* raw cotton, cotton yarns; cotton, cotton and worsted yarns in hosiery; raw silk, organzine, other yarns used with silk; wool, tops, worsted yarns; wool and yarns for carpets; hard fibres and soft fibres for cordage, linen, etc.; *products :* fur felt hats. III. Iron and Steel and their products. *Materials :* iron ore, fluxes, coke; pig-iron, scrap iron, ingots, etc. IV. Lumber and its re-manufactures. *Products :* softwoods, hardwoods.[1] V. Leather and its finished products. *Materials :* cattle hides, calf skins, goat skins, sheep skins; *products :* boots, etc., gloves, etc. VI. Paper and Printing. *Materials :* pulp wood, wood pulp, rags, waste paper. VII. Liquor and Beverages. *Products :* distilled spirits, fermented liquors. VIII. Chemical and Allied Products. *Materials :* coal (for coke), phosphate rock, coal (for gas), oil (for gas), pig lead, linseed oil, crude petroleum; *products :* sulphuric acid, soda ash, glycerine, explosives, crude oil, oil cake, hulls, linters, turpentine, rosin. IX. Stone, Clay and Glass. *Products :* common brick, fire brick, window glass, plate glass, bottles, blown glass. X. Metal and Metal Products other than Iron and Steel. *Materials :* consumption of copper, zinc, lead, silver and gold in industry. XI. Tobacco. *Products :* tobacco and snuff, cigars, cigarettes. XII. Vehicles for Land Transportation. *Products :* automobiles, carriages or wagons, railway passenger cars, freight cars. XIII. Railroad Repair Shops. No series. XIV. Miscellaneous Industries. No series.

It is to be noticed that in this list of eighty-three entries

[1] These are the products of the lumber industry; no output of furniture is named.

the so-called products are in general in a primitive stage of manufacture. Building is only represented by bricks, wood and glass. Metals hardly pass beyond the smelting or refining stage. Machinery is only represented by automobiles. The units are naturally simple, being of weight or volume in most cases; but canned food is enumerated by the *case*, hats by the *dozen*, leather by the *number* of hides or skins, pulp wood by the *cord*, bricks, bottles and blown glass, cigars and cigarettes by *number*, and automobiles, wagons and cars also by *number*. In the last case the implicit assumption is that a thousand automobiles in 1899 are exactly comparable with a thousand in 1919, which is contrary to the facts. The difficulty of measuring goods which result from intricate manufacturing processes has in no way been overcome.

In the second set of series the materials are replaced by manufactured products. Instead of milk and cream we find cheese and butter; in textiles the entries are of yarn, cloth and clothes; iron and steel are only carried to the stage of pig-iron, or rolled, forged and other classified steel products; instead of skins we have leather, but boots and gloves are not entered by quantity; in chemicals we find coke, gas, paints and oils; there is nothing further available for non-ferrous metals. The new kinds of units are *square yards* for cloth, *sides* for leather, and *number* for clothes; the others are of weight or volume. Since the contents of the second set of series overlap those of the first, while the substituted entries are in many cases the products of simple manufacturing processes, it is not surprising that the resulting index-numbers are nearly the same, and the second set of series lends little additional weight to the first. Also the square yards of cloth and the number of pairs of hose are not units which remain unchanged in quality through the period.

For very many industries no entries at all are included; for those which are included in the second set the ratio of the value of the products covered by the series to the total value of products in the same industry varies from 44 to 99 per cent., the median for thirty-eight industries being about 90 per cent.; but the industries included appear to account for less than one-half of the whole value in all industries covered by the Census of Production, and it is clear that the remaining half consists principally of just those products which are difficult to measure because they are in an advanced state of manufacture and of diverse kinds. The conclusion is that the index-numbers relate to that half of manufacture which produces commodities fairly

easy to measure, and does not reflect any changes in the relation between different grades of manufacture. If in the twenty years the industry of the United States has developed in the production of machinery and of advanced products without using more raw materials, this change will not have been shown by the index-numbers.

Questions of weighting the various series are not so important as is the inclusion of the right series of quantities, unless the necessity arises of modifying the weights from period to period, but the system employed is intricate and interesting, and it is worth while to exhibit it in detail. There are three steps in the process: first, the arrangement of the eighty-three series into forty industries; secondly, the arrangement of the forty industries into fourteen industrial groups; thirdly, the aggregation of the groups into one whole. The geometric mean is used throughout, and we discuss its appropriateness in a subsequent paragraph.

The first two steps may be illustrated by the Food Group. For the Butter, Cheese and Condensed Milk industry the data are that the consumption in manufacture of milk and of cream changes from the year 1909 to the year 1914 in the ratios 100 : 85·3 and 100 : 169·5 respectively. The expenditures on these in 1909 were in the ratio 119 : 95, and the general plan is to take the weighted geometric mean of the ratios, whose logarithm is $\frac{1}{214}$ of (119 log 85·3 + 95 log 169·5), as the ratio for the industry; but approximate numbers are generally used, and the ratio here is written 1 : 1, so that we have simply the square root of 85·3 × 169·5 = 120·2 as the index for the industry; the weighted arithmetic mean is 122·7, and the weighted geometric mean without approximation is 115·7.

For the second step the index-numbers thus resulting for the industries (in 1914 butter, etc., 120·2, meat 95·5, flour 101·5, beet-sugar 142·2, cane-sugar 113·7, canned fruits, etc., 141·8) are weighted with numbers approximately proportional to the "value added in manufacture" as found in the census of 1909 (viz.: 10, 40, 30, 5, 8, 7), and the weighted geometric mean, 105·8, is taken as the index-number for the industrial group "Food and Kindred Products"; the weighted arithmetic mean is 106·8.

For the third step the 12[1] index-numbers for the industrial groups are weighted with numbers approximately proportional

[1] Groups XII and XIV, Railroad Repair Shops and Miscellaneous, are completely unrepresented.

to the values added in manufacture in the whole groups, not merely in the industries for which series exist, and the weighted geometric mean is again taken, viz.: 104·9.[1] The weighted arithmetic mean is perceptibly greater, viz.: 106·5; but if the arithmetic mean had been used in the second step throughout to obtain the group indexes, and again in the third, it would have been greater still, viz.: 109·5. It is interesting to find that more than half the difference between the geometric and arithmetic mean comes from Group XII, Vehicles for Land Transport; here the index-numbers for 1914 are: automobiles 449·3, carriages 74·1, railroad cars 144·5, of which the weighted arithmetic and geometric means are 248·0 and 185·5; the industries included account for as much as three-quarters of the whole value in the group, and the striking increase in the production of automobiles is, without any clear reason, to a great extent averaged away.

The choice of the geometric mean is justified in the preliminary discussion on the grounds that it reduces the influence of extreme items and makes the shifting of the base year easy. The latter reason is unimportant, since the whole calculation *ab initio* from the series is not a very lengthy matter, and the compilers of the *Review* have never spared labour or expense. The former reason needs more examination, especially as opinion now inclines to the view that the geometric mean is the best in theory. We ought to distinguish three cases: (*a*) where the results of samples have to be combined; (*b*) where ratios, rather than absolute quantities, are the elements of the problem; (*c*) where a complete objective measurement is in question.

(*a*) When we are observing a general movement by means of measurements of special manifestations, each measurement may be regarded as one estimate of the general movement; if the general movement is 100 : 150, two estimates, 100 : 125 and 100 : 180, showing respectively $\frac{5}{6}$ths and $\frac{6}{5}$ths of the general ratio, may be considered as equally deviating and their geometric mean appropriate in their combination. On the other hand, estimates 100 : 125 and 100 : 175, whose arithmetic mean is 150, and which show equal numerical deviations, may be considered as equally in fault. Mr. C. M. Walsh, in his recent book, *The Problem of Estimation*, goes closely into this problem, and so far as can be gathered from his diffuse and controversial discussion, his main

[1] On p. 317 of the November number the index for Group VII is printed as 188·4, instead of 118·4, correctly given on p. 320. The right number has, however, evidently been used in the computation.

conclusion is "that while estimates proper are to be averaged geometrically, measurements are to be averaged arithmetically" (p. 37). If in the first step explained above the different series of raw materials, etc., are properly regarded as varying estimates of the growth of production in an industry, it appears to follow that here the geometric mean is rightly used; but the same principle does not apply to the second step in such a case as Road Transport, where we have definite measurements of most of the constituents. Further, in an estimate there may be good reason for reducing the importance of extreme variations, but not in a combination of definite physical measurements.

(*b*) In the case of index-numbers of wholesale prices (but not in concrete measurements of the cost of living) we have the authority of Jevons and others, supported recently by Mr. Flux, in the current number of the *Statistical Journal*, for the use of the geometric mean. This may be advocated on the general ground that price-changes are essentially ratios, or more particularly by the following analysis :—

Let P_0, P_t be prices at the beginning and end of a period, that are undisturbed by any influences that affect special commodities, and which measure the result of a general impulse F which acts on all prices.

Let it be granted that a given small impulse, dF, always produces the same ratio change in P, so that with proper choice of units $dF = dP/P$. This is the essential postulate.

Then F_t, the whole impulse in time t, $= \int dF = \int_{P_0}^{P_t} \frac{1}{P} dP =$ $\log P_t/P_0$.

Now let ${}_1p_0, {}_2p_0$ . . . and ${}_1p_t, {}_2p_t$ . . . be prices of particular commodities at the beginning and end of the period, and suppose them affected by impulses k_1, k_2 . . . as well as by F_t.

Then $F_t + k_1 = \log\ {}_1p_t/{}_1p_0$, $F_t + k_2 = \log\ {}_2p_t/{}_2p_0$ . . . , and if there are n commodities, $\Sigma \log p_t/p_0 = n F_t + \Sigma k = n \log P_t/P_0$, if $\Sigma k = 0$—that is, if the average of the special impulses is zero.

Then P_t/P_0 equals the geometric mean of ${}_1p_t/{}_1p_0$, ${}_2p_t/{}_2p_0$ . . . .

The hypotheses underlying this analysis do not appear to have any analogues in the measurement of production.

(*c*) In the third step of weighting we have the means of a complete objective measurement for twelve industrial groups, and there seems no reason against using the most straightforward method. If W_1, W_2 . . . W_{12} measure the outputs in 1909, and therefore ΣW the aggregate, and the outputs as measured

by the group index-numbers have increased by 1914 in the ratios $1 : r_1$, $1 : r_2$ . . . , then the outputs in 1914 are $W_1 r_1$, $W_2 r_2$, . . . , and the ratio of the aggregate outputs is $\Sigma Wr/\Sigma W$; that is, it is measured by the weighted arithmetic mean. The same argument would apply to the second step in cases when, as in the Road Transport and Tobacco Groups, the industries measured account for the bulk of the group. It appears that we ought to take at least 106·5 (arithmetic in third step), if not 109·5 (arithmetic in second and third steps) for the index in 1914 (that of 1909 being 100), instead of 104·9 (geometric throughout) as in the *Review*. The higher number is further supported by the fact that, when the second set of series (see p. 199 above) is used, the index (geometric) is 106·2. For the years 1899 and 1904 the various methods all result in practically the same index-numbers.

The index-numbers as given in the *Review* are: 1899 61·2, 1904 75·4, 1909 100, 1914 104·9.

The next step is to interpolate numbers for intermediate years; for this only thirty-three series out of the eighty-three used at census dates are available. These relate to wheat consumption; cattle, sheep and hogs received at seven cities; sugar supply; consumption of cotton, wool, other fibres, silk and pig-iron; lumber cut; production of distilled and of fermented liquors, cotton-seed, flax-seed, pigments, coke, petroleum, lime, glass-sand and clay; consumption of copper, zinc, lead, and of gold and silver in the arts; production of tobacco, cigars, cigarettes, freight-cars, passenger-cars, automobiles and auto-trucks. These are arranged under the twelve industrial groups and averaged and combined by the same methods as were used for the eighty-three series. Unfortunately the group averages show some marked divergence from those obtained at the census dates from the larger number of series, and when they are aggregated they lead to: 1899 54·6, 1904 74·2, 1909 100, 1914 106·6, instead of the former numbers. The thirty-three series are thus not typical of the eighty-three.

The annual series thus averaged are only used for interpolation in the intercensal years, by dividing the increase shown between two census years in any group from the eighty-three series into parts proportional to the five annual changes in that group shown by the annual series, ratios not absolute movements being used. The group annual index-numbers are then combined, and after some minor adjustments lead to the series in the following table. In this table figures are given also for agriculture and

mining, whose treatment is similar to that for manufactures, but easier, since the data are more nearly complete.

TABLE FROM "THE REVIEW OF ECONOMIC STATISTICS," JANUARY 1921, p. 20.[1]

Indices of Agriculture, Mining, and Manufacture, and of the Three Combined.
(Arithmetic average for 1909–13 = 100)

Year.	Agri-culture.	Mining.	Manu-facture.	Agriculture, Mining and Manufacture Combined. Weighted according to values in 1909.	Agriculture, Mining and Manufacture Combined. Weighted according to persons engaged in 1910.
1899 ..	80·4	48·5	58·4	64·6	69·4
1900 ..	80·9	51·3	59·0	65·4	70·1
1901 ..	71·8	55·6	65·6	66·9	68·5
1902 ..	91·4	59·5	72·1	77·3	81·8
1903 ..	84·4	65·5	73·3	76·4	79·0
1904 ..	93·3	66·1	71·9	78·5	83·1
1905 ..	94·5	78·4	84·3	87·3	89·6
1906 ..	100·5	82·4	90·5	93·3	95·6
1907 ..	90·4	90·2	91·3	90·9	90·8
1908 ..	95·5	74·8	77·5	83·3	87·2
1909 ..	95·0	91·9	95·4	95·0	95·0
1910 ..	99·1	97·8	96·9	97·8	98·2
1911 ..	94·1	94·3	92·4	93·2	93·5
1912 ..	111·0	105·1	105·9	107·6	108·7
1913 ..	98·2	110·2	109·2	105·2	102·8
1914 ..	108·5	98·3	100·1	102·9	104·7
1915 ..	113·4	110·4	109·3	110·8	111·7
1916 ..	100·4	129·5	127·7	117·2	111·4
1917 ..	108·5	134·5	125·6	119·8	115·9
1918 ..	107·1	135·6	125·0	119·0	114·9
1919 ..	110·6	110·8	114·0	112·5	111·9

Weights according to values.

	$ Mn.	%
Value of—		
Agricultural products ..	5487	36
Mineral products ..	1238	8
Added by manufactures	8529	56
	15,254	100

Weights according to persons engaged.

	000s	%
Engaged in—		
Agriculture	12384	57
Mineral production	977	5
Manufacture ..	8101	38
	21,462	100

It may be noted that in the United Kingdom in 1907, according to the Census of Production, the net output of agriculture and fishing was about £200 Mn, of mining £120 Mn, and of manufacture £600 Mn; the corresponding percentages are: 22, 13, and 65, markedly different from those in the United States.

The figures for manufacture after 1914 depend only on the thirty-three series, and since these were not typical before 1914,

[1] P. 65 of the Reprint.

it is improbable that they form a precise measure to 1919. It is assumed that they need adjustment to the same extent as was necessary in the period 1909–1914 to make agreement with the census figures. This procedure is hazardous, since the relationship in successive periods was not constant, but the correction is, in fact, trifling. If, however, the arithmetic mean advocated above were used for 1914, the subsequent series would have been perceptibly raised.

The increase in production from 1913 or 1914 to the maximum year (1917 or 1918) is less than the 20 per cent. named by Professor Friday (see review notice, below) as the increase in output shown to be possible.

In conclusion, we may judge that in the United States, with the help of a quinquennial census of production, an index-number of moderate precision has been evolved for a normal year. In the United Kingdom there are fewer annual records available, and even if we had a periodic census, the method would have very much less precision, owing to the greater importance in industry of products of the higher stages of manufacture.

A. L. BOWLEY

REVIEWS

The Economics of Welfare. By A. C. Pigou. (London: Macmillan & Co., 1920. Pp. xxxvi + 976. 8vo. Price 36*s*. net.)

In presence of a book of a thousand pages a reviewer feels somewhat of a worm, but, like that despised being, he is inclined to turn, when he finds that the author has incorporated an earlier book of his own comprising five hundred pages without troubling to make the usual statement explaining what parts are new and what old, and also the general effect of the alterations and improvements, if any. Attempting to do for Professor Pigou what he ought to have done (and could have done better) himself, we may say roughly that Part I. of *Wealth and Welfare*, on "Welfare and the National Dividend," reappears in the *Economics of Welfare* expanded by about 50 per cent. Part II., "The Magnitude of the National Dividend," becomes "The Magnitude of the National Dividend and the Distribution of Resources among Different Uses," and contains additional chapters suggested by the "controls" of the war period. Part III., "The Distribution of the National Dividend," is divided in the new book between Part V., which bears the old title, and a new Part III., on "The National Dividend and Labour." The author's increased interest in public finance bears fruit in the appearance of a wholly new Part IV., "The National Dividend and Government Finance," and the new book ends like the old with a Part on "The Variability of the National Dividend," *alias* booms and depressions. A good deal of the matter which was not in *Wealth and Welfare* is repeated from articles in The Economic Journal and other periodicals.

The sage who observed that of the making of books there is no end, was a child in these matters. In Professor Pigou's paradise each author will scrap his *magnum opus* by superseding it with another twice its size every eight years. Most of us will sigh for a little of Malthus' "prudential restraint." It would

surely have been better to let *Wealth and Welfare* remain in its old form and to have supplemented it with entirely new books of more moderate dimensions.

Part I., as summarised by the author, looks at first sight easy enough. It argues, he says, "that the economic welfare of a community is likely to be greater (1) the larger is the *average* volume of the national dividend, (2) the larger is the *average* share of the national dividend that accrues to the poor, and (3) the less variable are the annual volume of the national dividend and the *annual* share that accrues to the poor." In the rude language of everyday life, a big, well-distributed and steady income is better than a small, ill-distributed and violently fluctuating income, especially if the fluctuations fall chiefly on the poor. Must we read 108 pages to make sure that we are right in believing this? But having read them, I am tempted, in the manner of Agrippa, to say unto Pigou, "Almost thou persuadest me not to be an economist," so prolific are they in suggestions of doubt and difficulty. What is this "National Dividend"? Marshall, when introducing the term into economic literature in 1890 (*Principles*, 1st ed., p. 560), understood by it "a certain net aggregate of commodities, material and immaterial, including services of all kinds," which constituted "the true net annual revenue of the country." Professor Pigou rashly says "the concept has nothing to do with the dividends paid by joint stock companies," but it is quite clear that Marshall used the word "dividend" because he was thinking of the amount "to be divided," just as a board of directors does when it finds that the company's profits will provide a dividend of 10 per cent. on the capital. The name "national dividend" is, in fact, nothing but a synonym for the "net produce" of older writers and the "real income" of later writers, which may be sometimes appropriately used when distribution rather than production is under discussion.

Now it seems easy to believe that when the "net produce" or "real income" of a community grows (its numbers remaining the same) its economic welfare will grow. But how are we to speak quantitatively of the net produce? It consists, as Professor Pigou says, "of a number of objective services, some of which are rendered through commodities, while others are rendered direct" (p. 30). We cannot think the total of them as greater because it weighs more or occupies more cubic space. In fact we think of it as greater or less according as it is *worth* more or less. At first we measure its worth in pounds or francs, and then, if it

is suggested that pounds or francs themselves are not worth the same as they were, we try to get over the difficulty by raising or lowering the number of pounds or francs in due proportion to their lower or higher purchasing power. If we were satisfied to reckon the purchasing power of money by its power to buy red winter wheat, or a bushel of red winter wheat plus a ton of pig iron, or any other particular commodity or collection of commodities, that would end the matter, but we should only have substituted red winter wheat or the collection of commodities for money, and it might still be claimed that the wheat or the collection had altered in purchasing power. We are driven to inquire, what do we mean by "the same purchasing power"? I understand, perhaps wrongly, Professor Pigou to say that I have the same purchasing power when I can buy the same amount of economic satisfaction (pp. 69-79). The result, apparently accepted by him on p. 70, is that the total net produce must be regarded as greater or less according as greater or less economic satisfaction is derived from it. If this is so, I fail to see the use of an elaborate attempt to prove the first of the three propositions, viz. that "the economic welfare of a community is likely to be greater the larger is the average volume of the national dividend." It seems to become a truism.

The use of "national" as the adjectival form of "community" in the proposition calls up another difficulty—Professor Pigou's treatment of war in regard to the national dividend. His is a nationalist scheme of economics, as is suggested by the frequent use of "national" and "nation," and the occasional intrusion of "this country" or "England" into a discussion of a general character. Now in national economy soldiers, guns and forts play just the same part that policemen or private watchmen, revolver-makers and window-bar-makers play in individual economy. In adding up the incomes of individuals to arrive at the national income in the ordinary sense, we do not think of excluding the incomes of the policemen, the revolver-makers and the window-bar-makers: these persons render services which are included in "that objective counterpart of economic welfare which economists call the national dividend or national income." We do not exclude their incomes or the services rendered by them on the ground that if there were no house-breakers and assaulters we could very well do without them: if there were no diseases we could do without doctors. We do not exclude them on the ground that there is no real satisfaction in having, or, as we say, "having to have" a watchman: there is none in having to have a doctor,

and some people are sorry that they have to have food. Now Professor Pigou expressly includes doctors' services in the national dividend (p. 72), and I can nowhere find any sign of his excluding the money-incomes of soldiers and munition-makers from the national money-income, or the services rendered by these persons from the national dividend. When the vaunted "measuring rod of money" is applied, the services of the military officer with £1,000 a year count for as much as the services of the medical officer with the same salary. Accordingly I am puzzled when I find Professor Pigou talking (p. 18) about "the possible conflict, long ago emphasised by Adam Smith, between opulence and defence," saying that the "dissatisfactions" resulting from lack of security against successful attack "lie outside the economic sphere," and arguing that "injury to economic welfare may need to be accepted for the sake of defensive strategy." If a workman, finding his temperature was 102°, chose to lose two days' wages at once rather than continue at work for those two days and be sick for the following three weeks, would we speak of him as "accepting injury to economic welfare for the sake of defensive strategy against influenza"? Of course not: we should say he was taking the economically prudent course. And so, it seems to me, an economist who looks on economics from the point of view of the nation—his own for choice—and who accepts the old "possessing exchange-value" criterion (re-christened something like "susceptibility to the measuring rod of money") for deciding what is to be included in the national dividend or objective counterpart of economic welfare, is bound to regard war as a productive trade, just like the manufacture of bread or patent medicines. A nationalist economist who does not hold to the exchange-value criterion is at liberty to pick and choose between war which promotes and war which does not promote economic welfare, just as he picks and chooses when he throws out the useless or pernicious patent medicines, and an economist who not only rejects that criterion, but also thinks of the community or society at large rather than of a particular territorial group, can put all war on the same level as burglary and other disorderly activities recognised by everyone, except perhaps those who practise them, as being destructive instead of productive of economic welfare.

The obscurity which surrounds the conception of the national dividend is deepened by the last paragraph of the chapter in which the attempt is made to relate it to the "money income accruing to the community," *i. e.* the national income in the

ordinary sense of the sum of the incomes of the individuals (and perhaps the institutions) located in the national territory. An addition to the national dividend, we are told in a parenthesis, must, of course, be made for the value of income received from abroad: no doubt we are intended to supply "or a subtraction for income paid to abroad." It is rather curious to put so important a matter in a parenthesis and after a casual "of course." Is it not important that the national dividend is not by any means exactly what the nation produces, nor even, as Adam Smith implied in his opening words, a portion of that produce plus what is purchased from outside with the remainder, but this quantity as increased or reduced by international payments other than those involved in such purchases? But more difficult matter follows. We are to exclude from the national income all that is "received by native creditors of the State in interest on loans that have been employed 'unproductively,' *i. e.* in such a way that they do not, as loans to buy railways would do, themselves 'produce' money with which to pay the interest on them." At this point the sceptical reader may well interject, "*Would* loans to buy railways produce money to pay interest?" But our author goes on, "This means that the income received as interest on War loan—or the income paid to the State to provide this interest—ought to be excluded. Nor is it possible to overthrow this conclusion by suggesting that the money spent on the war has really been 'productive' because it indirectly prevented invasion and the destruction of material capital that is now producing goods sold for money; for whatever product war expenditure may have been responsible for in this way is already counted in the income earned by the material capital." Surely this introduction of "productive" in the Local Government Board sense of "bringing in money" is quite misleading. Whether the money was borrowed for a purpose which yields some money revenue or not, makes no difference to the fact that interest paid by the private individual A to the private individual B makes A's income smaller and B's larger by the amount payable, and this is recognised in income-tax returns and everywhere else. What is necessary to teach about State and local debts is that, while it is tempting to apply the same principle by taking the "income" of the taxpayer, not as what it is usually taken to be, but that amount net after deduction of the amount due as interest to the State creditors, in fact the existence of taxes on commodities stands in the way of this easy solution. Such taxes diminish the purchasing power of the taxpayer, not by diminishing the

amount of money which he can spend, but by diminishing the amount of commodities which he can buy with a given amount of money, and if or in so far as the taxes raised to pay the fundholder's interest are of this kind, no deduction from income in the ordinary sense is required for the purpose which Professor Pigou has in view. If A, with £1,000 a year, pays £50 in income-tax, which is handed by the State to fundholders or old-age pensioners, it is true that he has only £950 to spend on commodities and services and pay away in other taxation to State and local authorities, but if, still with £1,000 a year, he pays £50 in taxes on his wine and tobacco, and that is handed to old-age pensioners or fundholders, it is quite wrong to say he has only £950 to spend and pay away in other taxation. He still has £1,000, and the goods and services (including those paid for by taxation taken as worth what he pays) which form his share of Professor Pigou's national dividend are worth that sum, so that the suggested deduction in order to make the national income correspond with the value of the national dividend must not be made. In comparing one income at one period with that at another period, the necessary adjustment will be made by allowing for changed purchasing power of money, but for getting the national income and the value of the dividend to agree at the same moment, no tinkering with the figures is required so far as the taxation for paying interest on the national debt is on commodities. As no one knows, or can possibly know, how far it is, the whole matter is much less easy than it looks.

The suggestion that fundholders' interest forms an improper addition to national income recurs in a footnote to p. 626, where it is said that "strictly," taxpayers in estimating their income for income-tax "ought to be allowed to deduct that part of their tax payment which is needed to pay the fundholders." How the part falling on each individual taxpayer is to be settled, is not stated, and the note admits that "the rate of tax would have to be considerably increased," and then ends strangely with the proposition, "Incidentally, the burden would be shifted to some extent away from persons who pay taxes but hold no Government loans, on to the shoulders of large fundholders." Why? Assuming, as the author evidently does, that the interest is met entirely from income-tax, has he not forgotten that when, as in this country is the general rule, Government interest is subject to income-tax, the fundholder would gain by the deduction and lose by the rise of rate equal amounts, just like a taxpayer who had

no Government funds: and where Government interest is not liable to tax he would not be affected at all?

This talk of taxes leads me to another case in which Professor Pigou seems to have overrated the simplicity of their effects. In the chapter on "Taxes on the Public Value of Land," he quotes with approval the New Zealand law, which, he says, takes what Marshall calls the "public value of land" to be the actual value (in the everyday business sense) of the land minus the cost of improvements effected by the owner, so that if two properties, A and B, each now worth £1,000, have been created out of dismal swamps by the expenditure of £100 on A and £400 on B, the "public value" of A, which can be taxed without detriment to enterprise, will be £900, and of B it will be £600. He thinks that the nine-tenths of the value of A and the six-tenths of the value of B, "being due to public causes, cannot be made less by any action or abstention from action on the part of the owner," so that taxation of it is "completely 'unavoidable' and the expectation of it wholly innocuous, provided only that the technical difficulty of appropriate definition can be overcome." This appears to overlook completely that remuneration of the skill and foresight of the swamp-draining owner is part of the cost of swamp-draining. In the absence of taxation we may suppose that before the improvement the two swamps looked to the ignorant much alike, and were offered by existing owners for sale at £600 each. X being a clever man and knowing about swamps bought A, while Y, not nearly so acute, bought B. X spent £100 and made a profit of £300; Y spent £400 and made a profit of nil. Anything which tends to reduce the profits of swamp-draining will tend to discourage X and others from ventures in swamp-draining, and what *increasing* tax will not? A tax which is a fixed amount once for all, like the English Land-tax (strictly speaking only when all the land in the parish belongs to the same owner), will not discourage improvement, but any tax which becomes heavier when the value of the land rises by more than the out-of-pocket expenditure of the owner (or than that plus some uniform percentage on it for profit), must deter people from undertaking the business of adapting land for economic use. It was not a difficulty of definition which first hung up and finally disposed of the Lloyd-George increment duty: the required tax may be shortly defined as "a tax on increasing value of land which will not discourage improvement." The trouble is that, like the famous black hat, this tax does not exist. The increment duty was found to fall on "builders' profits," and it was promised that

it should be amended so as to prevent this; but there was no way of doing it. Of course the duty might have been a necessary tax although it "discouraged improvement": all taxes discourage some form of expenditure, and those which discourage only bad forms of expenditure do not bring in enough money.

About this many, no doubt, will agree with Professor Pigou rather than with the present reviewer, but few will be found to accept the amazing paradox put forward on p. 629 that an income-tax with an exemption for savings is "neutral as between saving and spending," while an ordinary income-tax "differentiates against saving." Under the ordinary income-tax, A and B, with £1,000 a year each, pay the same tax, say £200, which leaves them with £800 each to spend or save as they please. A saves £250 and B saves nothing—the revenue recks not of it. Surely this is neutrality? No, says Professor Pigou, because next year A will be drawing say 6 per cent. on his investment, and will then be taxed on the £15 of additional income (and thus only have £12 additional to spend or save), whereas B, having no additional income, will only pay the same as before. But how is this differentiation against savings? The position is just the same as it was the year before, except that A having £1,015, £203 is collected from him, and he is left with £812 to spend or save as he pleases. On the other hand, when exemption is given to savings, supposing the £400 is still raised from A and B together, A in the first year is likely to save £260, pay only £170 in tax and spend £570, while B will pay £230 in tax and have only £770 to spend. A's position is then obviously improved in comparison with B's, not only as against a time when there is a uniform income-tax, but also as against a time when there is no tax at all. Possibly the confusion is explained by Professor Pigou's peculiar way of reckoning savings. He says, "If £100 of income is put away for saving," a uniform income-tax at x per cent. "removes £x from it at the moment," *i. e.* when, the tax being at 6*s.*, Professor Pigou "saves £70" in the ordinary sense, he says he has "put away £100 of income for saving," thus including in his savings £30 which has already been collected from him by the Government, and which he can therefore in fact neither save nor spend. We save and spend out of what the Government leaves us after we have paid out our income-tax.

In its general drift the book is in accordance with the tendency of common opinion at the present time. Thirty years ago a common saying was that enough had been done about production —it was time to turn to distribution. Now a certain reaction

against that rather foolish cry is in full swing, and it is being recognised that in estimating the merits of principles and machinery of distribution we must always keep production before our eyes. Professor Pigou, like others, is subject to the influence —the result perhaps of experience rather than of mere academic intellectual activity—and this book is more reactionary (in quite a good sense of the word) than *Wealth and Welfare*. There is in it a more complete recognition of the fact that "problems of wages" which were once supposed to be adequately dealt with under "distribution" are questions of the organisation of production. An obvious indication of this is the way in which "Labour Problems" have been taken out of the old Part III. on Distribution, but the change permeates the whole book and gives it "more bite" than the earlier one. It would have been better if it had been an entirely new book, and we may hope that moulds have been kept of it, so that when it is sold out its author may not be tempted to incorporate it in a two-thousand page *Welfare and Economics*. Anyway it is a valiant effort by a very gallant gentleman to increase our economic welfare.

EDWIN CANNAN

Some Aspects of the Inequality of Incomes in Modern Communities. By HUGH DALTON, M.A.

ESPECIALLY attractive in its subject-matter and opportune in its appearance, Mr. Dalton's book starts with considerable advantages; but the advantages are not unmixed. It gains from the fact that the subject has hitherto been rather curiously neglected; for up to 1911, as we are reminded, no systematic treatise had contained any attempt to answer comprehensively and directly the question: What are the causes of inequality of incomes? But it loses because, in spite of this fact, economists have somehow contrived to establish most, if not all, of the leading ideas bearing on the matter. These two conditions determine the general character of the book: they make it primarily a review of existing opinion and a convergence of this opinion on a subject not hitherto dealt with as a unity. It should be added that the range of opinion reviewed is wide, that the writing is easy and lucid, and that the treatment is neither diffuse nor unduly compressed.

The case against inequality on its existing scale is so conclusive that one might have hoped the opening chapters would have conducted its defence, and, if only by exposing the weakness

of its case, would have emphasised its condemnation. Would experiments in the art of living have gone so far, would our English countryside be so pleasant a place, had incomes in the past been more nearly equal? But such considerations are not dealt with. They are swallowed, as they should be, in the capacious generalisation that up to a certain point the more equal the distribution of the total income the more fully will it satisfy economic needs and the larger is likely to be its contribution to economic welfare. This statement does not, of course, stand without qualification. Possible changes in distribution must be considered in conjunction with their effects on the amount to be divided; and emphasis is laid on the fact that accountancy in terms of economic welfare must further take into its reckoning, not only the subjective costs of producing income, but also the extremely unequal distribution of those costs among the producing parties.

After indicating, from spacious considerations of this kind, the gain to economic welfare which may follow from a less unequal division of the national output and of the real costs involved in its production, Mr. Dalton passes to a comprehensive survey of past theories of distribution. This survey, being designed for a larger work than the present book, is, as he admits, somewhat disproportionate to its context. But apart from being a convenient summary of past English and foreign theory, it helps forward the general argument by enabling him to emphasise the consideration that the theory of distribution should not be confined, as it usually was by the classical economists, to the explanation of the rates of remuneration of the factors of production; but should go further and consider both the causes that govern the proportions of the total output going to the different classes of producers—landlords, capitalists and labourers—and, above all, the manner in which the share going to each group is divided among the individuals of which it is composed.

It is with these hitherto somewhat neglected questions that the remainder of the book is concerned. Part III, dealing with the Division of Income between Categories, may be left without comment; for it is in Part IV, on the Division of Incomes between Persons, that the chief interest of the book lies. This part opens with a discussion of the inequality of incomes: those arising from civil rights and private gifts, those from work and those from property; and concludes with the author's proposals for reform.

The discussion of incomes from civil rights and private gifts, though it yields no new ideas, is a convenient reminder of the contribution to small incomes derived from such sources as Old Age Pensions, Insurance, educational facilities and Poor Relief. Professor Macgregor's estimate is quoted as showing that in 1911 supports to wages, in the form of working-class income from private charity and from national services in favour of the working classes, amounted to at least 15 per cent. of the annual wages bill; and the conclusion is reached that there is scope for a large extension of income-bearing civil rights with the effect of reducing inequality of incomes and increasing production.

But the treatment of incomes from work is less satisfactory. Inequalities in these incomes are separated into those due to differences in the *amount* and those due to differences in the *value per unit* of the work done by individuals. The latter arise mainly on the side of supply, the most important being: first, "the differences in attractiveness, apart from money earnings, of different occupations"; and second, the lack of freedom of choice of occupation. No one will doubt the importance of the second cause or deny the nature of the proper remedy—better and more equally distributed facilities for education and training. But to ask what methods are available for reducing differences in the attractiveness of different occupations, is surely to ask a question with no real meaning, for such differences are in a large measure elements of real income. The answer given only adds to the reader's perplexity. The differences will be reduced, he is told, among other methods, by "an increase in the relative social esteem in which the occupations now least esteemed are held." Is he, then, to assume that the value of the unit of work in the least reputable occupations would be raised by a cause which increased their attractiveness to labour? The point of criticism is not important enough to pursue further; the more so because there are signs that the argument has suffered from late and hasty compression. It is more interesting to turn to Mr. Dalton's treatment of inequalities arising from the ownership of property, in particular from the "very curious, very important and very much neglected phenomenon of inherited wealth."

The charge against economists that this subject has been unreasonably neglected is both made and removed in Mr. Dalton's examination of the comparative non-fiscal law of inheritance. He here deals descriptively with limitations on the right of bequest, and analytically with their effects on productivity and inequality

of incomes. And yet the results of the discussion are somewhat disappointing. It is interesting to know that substantial freedom of bequest is practically confined to English-speaking countries, and to have details of the application of the law of legitim in France, Italy and elsewhere; but the inquiry into the effects of those laws, and of custom working within them, yields no definite economic conclusion: "no important reduction of inequality, or other incidental advantage, is to be anticipated from the adoption in this country of the legitim in its ordinary European form."

An examination of the fiscal law of inheritance, however, gives Mr. Dalton scope for very far-reaching proposals for reform. Given that the institution of inheritance is one of the most important causes of inequality of incomes, and at the same time one of the most powerful means of encouraging the accumulation of capital, in what way may it be modified so as to improve the distribution, without unduly injuring the production, of wealth? The solution which we are invited to consider is based on Professor Rignano's inheritance scheme. This scheme proposes that an estate passing by death through the hands of successive heirs should be subjected to a series of progressive taxes, the State taking, perhaps, one-third at the first transmission, two-thirds at the second and the whole at the third; the essential principle on which it rests being that the more remote the taxation of wealth from the party who accumulated it, the less will be its deterrent effects on the accumulation or conservation of that wealth.

Mr. Dalton proposes to utilise the principle in this way. On the passing at death of an estate of a value exceeding, say, £500, there should be levied two taxes: the first, a tax graduated progressively in accordance with the size of the taxable estate, should be levied only on that property which the deceased had himself acquired by gift or inheritance; the second, a tax on the remaining estate, should be graduated in accordance with the size of individual inheritances, and should take 100 per cent. of legacies above a very large figure in order to introduce Mill's principle of a maximum individual inheritance. In order to reduce the administrative difficulties of separating the two sources of inherited property, it is proposed that all transfers of wealth in excess of, say, £2000, whether by gifts *inter vivos* or by death, should pass into the legal ownership of the Public Trustee, whose duty it would be to pay to beneficiaries the incomes to which they were entitled, and to undertake the

administration of all the property, with the possible exception of highly speculative and private businesses which would presumably be sold by him in the open market. The income received from these inheritance taxes would ultimately be entrusted to Public Assets Commissioners, and applied by them partly to the extinction of public debt, partly to the accumulation of a great national fund, available, as public policy might direct, for such purposes as the purchase of industries, or the development of the sources of supply of our raw materials.

Mr. Dalton no doubt anticipates that so far-reaching and so rapid an extension of public control of industry will be sufficient to ensure on the part of many of his readers a whole-hearted condemnation of his proposals. Among those who are not moved by this objection he must expect doubt with regard to their effects on productivity. The Public Trustee may, indeed, check the decumulation of existing wealth by holding its physical forms; but will the sources of new wealth, in particular industrial initiative, not be greatly impaired by the creation of a large class of State annuitants divorced from the control of capital, and by the frequent breaches of continuity in the ownership of private businesses with the consequent injury to business reputation and connections and loss of family tradition?

But, with all this, there is undeniably a great deal to be said for the underlying ideas: in particular the heavier and more remote taxation of accumulated wealth, with the accompanying recognition that inherited wealth should be held as it were in trust, subject to subsequent claims by the State. But these State claims could surely be secured by some less drastic measure than the assumption of control of the property by the Public Trustee. Would it not be equally effective and far simpler if the heir retained control over his property and gave security for the subsequent payment of death duties by, let us say, taking out a life insurance policy and assigning the interest in it to the State? If, in some such way as this, the spirit of Mr. Dalton's proposals could be got into a working body, there might become available a source of revenue especially suitable for the reduction of public debt. May it run forward and fetch the age of gold.

F. LAVINGTON

Profits, Wages and Prices. By DAVID FRIDAY, Professor of Political Economy, University of Michigan. (New York: Harcourt, Brace and Howe. Pp. 256.)

THIS book is most important to all who are examining the action of economic forces during the war and their result on profits and on wages. The movements of prices and wages familiar to us in this country are reflected closely in the United States. There, as here, prices rose before rates of wages, the workman getting his advantage from full employment, and there also it seems a question whether real wages or earnings were higher or lower in 1920 than in 1914. The same discussions about profiteering, the effect of the excess profits tax, the causes of price inflation, the capacity of industry to bear the increased wages bill and the increased taxation without starving investment, have taken place in both countries. Professor Friday discusses such questions in an attractive style, lucidly and impartially. The United States are, of course, now in a much more favourable position than European countries, because during the first thirty months of the war they were able to sell their increased product at greatly enhanced prices to Europe and to capitalise the receipts. They were thus in a condition of extraordinary financial strength for facing the relatively short period of their war expenses. The following table (p. 15 and p. 64) indicate very clearly the dates and magnitude of the profits made by corporations :—

NET INCOME OF ALL CORPORATIONS.

Dollars, millions.

	Before Taxes.	Federal Taxes.	After Taxes.	Dividends.	Surplus Reinvested
1914 ..	3710	39	3671	2412	1299
1915 ..	5184	57	5127	2595	2590
1916 ..	8766	172	8594	3784	4810
1917 ..	10730	2142	8588	4652	3936
1918 ..	9500	3200	6300	4250	2050
1919 ..	8500	1800	6700	3900	2800

In 1914 and 1915 the tables are not quite consistent with one another, and it appears that the dividends and surplus should each be reduced 1 per cent. In 1918 and 1919 the total figures are estimates, believed to be correct within 5 per cent. The lessons to be drawn from this and similar tables are that profits were enormous in 1916 and 1917, that taxation did not trench on them very seriously, and that reinvestment in 1919 bore as high a proportion to net income (before taxation) as in 1914, which was also approximately the proportion in each year from 1909 to 1913.

Professor Friday is able to obtain statistics, for the most part official, which appear to give adequate answers to all those questions which, for want of information, are the despair of economists and politicians here. It is not possible to criticise their accuracy, but we may hope that they are sufficiently precise and definite to bear the arguments based on them, for the author has spared no pains in his endeavours to make them complete and co-ordinated. He is able, for example, to show year by year (p. 124) the distribution of the net product of mining, manufacturing, railroad and public utility corporations. In 1913 wages took 63·9 per cent., taxes 3·8, interest 8·9, dividends 18·5, and the surplus was 4·9; in 1919 the numbers in the same order were 70·2, 9·0, 5·0, 11·1 and 4·7. Wages had advanced relatively, interest and dividends had fallen; but this relative gain took place entirely since 1918, while in 1917 the percentage to wages was as low as 54·3. Nevertheless, owing to the great increase already indicated in output and prices, wages had risen considerably by 1917, but profits had risen more. It may be noted that the proportion to wages in 1913—viz., 66½ per cent. of taxes are excluded—is very nearly the same as the proportion estimated in this country in 1907 for wages and salaries—viz., 68 per cent. It may very well be the case that the proportion has changed here in the same way as in U.S.A.

It is estimated that the increase in productive output during the war was at least 20 per cent., apart from the increase in prices; but since the Armistice it is believed that the workman's effort has fallen very considerably.

Finally, we may call special attention to Chapter III, where a very interesting account is given of the variability of profits, both between and within industries, for a long series of years.

A. L. Bowley

Elements of Statistics. By A. L. Bowley, Sc.D., Professor of Statistics in the University of London. Fourth edition, revised and enlarged. (London: P. S. King & Son. New York: Charles Scribner's Sons. 1920. Pp. xii. + 454. Price 24*s.* net, or in two parts, Part I 16*s.* net, Part II 12*s.* 6*d.* net.)

Many of us, to whom the first edition of Dr. Bowley's *Elements* has been familiar for twenty years, have hoped for long that he would at some time find it possible to effect an extensive revision, and in particular to deal more fully with mathematical methods. Such a revision has now been carried out and the results are before

us in the Fourth Edition. The re-casting has mainly affected Part II, "Applications of Mathematics to Statistics." In the first edition of 1901, Part I, on "General Elementary Methods," occupied 258 pages; it now extends to 241 only. To Part II was given a mere 68 pages; it is now to all intents and purposes a new work of 210 pages. The whole volume appears to have been reset.

In Part I the main alterations are as follows: In Chapter III the section on the work of the Labour Department, as an illustration of method, has been replaced by an account—a much more interesting and illuminating account—of the investigations relating to the condition of the working-classes, the results of which were published in *Livelihood and Poverty*. Chapter V, on Averages, has been rearranged and a rather fuller discussion has been given of weighting. The following chapter, VI, giving some examples of the use of averages in tabulation, has been replaced by a new chapter on Measures of Dispersion and Skewness. In Chapter IX the space given to discussion of index numbers of retail prices has been increased, and, finally, the second section of the concluding chapter, on Interpolation, has been re-written and considerably extended. There are very few points calling for comment. The present reviewer would like to have seen the method of standardisation, *e. g.* of death-rates, which is barely referred to in Chapter V, treated more fully, in view of its importance and its very wide applicability. In the chapter on Index Numbers he would also like to have found some more detailed description and discussion of the principal index numbers of prices. The only point which he feels calls for some adverse criticism is that the paragraph should still stand stating that the discussion of the proper choice of weights has occupied a space in statistical literature out of all proportion to its significance, "for it may be said at once that no great importance need be attached to the special choice of weights. One of the most convenient facts of statistical theory is that, given certain conditions, the same result is obtained with sufficient closeness whatever logical system of weights is applied." It is precisely the "logical" system of weighting that is apt to lead to marked differences. Such language could hardly have been used if there had been a full treatment of standardisation, for example, which is simply a process of logical weighting and, as every one knows who has used it, may have very marked effects. The statement is dangerous, though perhaps not misleading thanks to the subsequent discussion, and it would be safer to warn the student

at the outset that *unless* certain conditions are fulfilled, weighting may make any difference—as large as you please—and to show him cases in which it does so. The chapter on Interpolation has been greatly improved by the increased space devoted to the subject, and is now a very useful introduction for the student—the only introduction, indeed, that is readily available.

As Part II is practically a new work, it may be useful to give, in the first place, some account of its contents. The opening chapter deals with the general conception of the frequency distribution, the measurement of dispersion, and the calculation of moments. The elementary principles of algebraic probability are then developed, and the deduction of the normal curve of error from the binomial series. Bernoulli's laws follow and many applications to cases of sampling, a section on the "Law of Small Numbers" concluding the chapter. Chapter III, on the Law of Great Numbers (the Generalised Law of Error), develops the normal law from wider hypotheses; the second approximation is given and its use illustrated. In Chapter IV the precision of sums and averages, the effect of absolute errors in weighted sums and averages, and of relative errors in products, quotients and averages, and the testing of significance of differences between averages, are dealt with in detail. "Empirical Frequency Equations" is the subject of the next chapter, which gives a very brief exposition—of only seven pages—of Pearson's curves, Edgeworth's method, Pareto's law for the distribution of wealth, and Makeham's law. Dr. Bowley then proceeds to the subject of correlation, considered mainly from the standpoint of the normal law; the correlation ratio, the measurement of correlation between ungraded variables on the assumption of normality, the method of contingency, and the problem of the correlation of time-series are also discussed, and the following chapter gives examples. The effect on the expression for the normal correlation surface of the retention of terms in $1/\sqrt{n}$ is shown in a note at the end of the latter chapter. Partial and multiple correlation receives rather condensed consideration in Chapter VIII, and Chapter IX turns to the very difficult subject of the measurement of precision of statistical constants from the standpoint of inverse probability. The final chapter deals with Professor Pearson's method of testing "goodness of fit," a very much simplified proof by induction being given, and some mathematical notes on special points (including, among others, Sheppard's corrections for moments, the moments and constants of the second approximation to the normal law of error, and the

normality of deviations in the errors of moments, etc.) conclude the volume.

Any reader who knows the earlier editions will see from this description how greatly Part II has been changed. It now affords a broad survey of the whole field. On certain subjects, *e. g.* on multiple correlation and on modes of deriving frequency curves other than the normal (why call them all *empirical* curves? they are often no more so and no less so than the normal curve), the student will have to search elsewhere for more detailed treatment and illustration, but, on the other hand, he will find much treated in Dr. Bowley's book that is not dealt with elsewhere in such detail, or at all. Nowhere else will he find, certainly in any English work, so many illustrations of the theory of sampling as applied to social investigation. Attention may especially be directed to the rules and cautions on this matter given on pp. 278–80. Nowhere else at all, so far as we are aware, will the student find in volume form any description given, or use made, of the second approximation to the normal law. Throughout, the number of sociological and economic illustrations is unequalled; but when Dr. Bowley states that examples have been chosen "principally" from these fields, the term must not be taken in too strict a sense. Even Dr. Bowley has had to draw on other material. Apart from the numerous illustrations in artificial chance, lengths of bricks, skull measurements, speeds of pedestrians, records in horse-races, hair colours, the right ascension of the Pole Star, or markings on herrings cannot be regarded as of much economic or sociological interest. The fact that a writer who is especially desirous of drawing his illustrations from the economic field is nevertheless compelled to take many examples from other sources, suggests that it is really difficult to obtain the required variety of illustrations from the field desired. Certainly the reviewer has found this to be so.

Dr. Bowley recognises in his preface that his views on certain points respecting mathematical methods will not always command assent, but this is hardly the place in which to deal with such technical matters. Apart from all matters of controversy—if one ought even to dignify by such a name questions that are really of quite a minor kind—Part II now forms an excellent volume to put in the hands of the economic student with mathematical training, if he *has* had good mathematical training. "The actual knowledge postulated," says Dr. Bowley, "is that obtainable in a graduate course on the calculus," the only theorems not generally included being proved in the Appendix. This is,

if anything, rather too slight a description of the mathematical ability required: the reader must be really familiar with the calculus, and for Chapter VIII with determinants. Had so much mathematics not been assumed, the ground covered would have had to be greatly restricted, but the assumption has its inevitable disadvantages for the average student.

In its new, and greatly improved, form Dr. Bowley's volume is assured of a long life, and one would like to plead for two minor improvements in future issues. First, that the chapter on Interpolation should be included with Part II when that part is bound separately, for it is mainly of use to the mathematical student, and the mathematician will complain at having to purchase the whole of Part I, when all he wants is Chapter X. Secondly, that the index should be revised and made much more detailed. The book is bound to be turned to very frequently for reference, and the present index is incomplete (*e.g. binomial* does not occur, though *multinomial* does) and insufficiently detailed (cf. under *weighted average*), so that one may have to search through a number of pages before finding the desired passage. It would be very convenient to index even the subject matters of examples worked in the text, as it is often by the example that one recalls a particular paragraph in which some point is discussed.

G. UDNY YULE

Karl Marx and Modern Socialism. By F. R. SALTER, M.A., Fellow and Lecturer in Magdalene College, Cambridge. (London: Macmillan & Co. 1921. Pp. 263. Price 6s.)

ST. PAUL (1 Cor. ix. 18–22) made himself all things to all men in order to gain converts. To the weak he became weak, to the Jew a Jew, to them that are without the law he, too, became without the law. Mr. Salter has tried to follow the Pauline example. But there is a difference. The apostle did not become all things at the same time to the same people. And throughout his economics of truth he clung steadfastly to his own firm faith. Whether Mr. Salter believes in Marx at all or how much must be doubtful to any reader of his book. He glorifies and he condemns Marx with bewildering quick changes. To be everything by turns and nothing long in judgments on the same man in the same book can only puzzle the reader. To revert to Pauline language, it is not for edification.

The first sentence of the book declares that it "is not in any way an anti-collectivist pamphlet." Far from it. By the

use of a pair of scissors a very fair specimen of the common Marxian pamphlet might be compiled. Here are a few samples. "Marx has certainly had less than justice done him hitherto" (Preface). This "hitherto" is rather lordly, but may go to the making of a Marxian pamphlet. The following is better: "For the descriptive portions of the book (*Capital*) the hackneyed phrase 'masterly' is barely enough praise. It would be hard to do adequate justice to the painstaking research, the able handling of materials, and, finally, the comprehensive survey produced."

Marx's use of mathematics does not call forth such extravagant praise, but at any rate it is made to appear better than that of the mathematical economists. "We do not mind Marx being *somewhat* algebraical: he at any rate has *spared* us the differential calculus which some economists consider indispensable." This is indeed being more than weak to the weak.

The plagiarisms of Marx are fully admitted (Foxwell could not be denied), but they are explained away. "However much his theory of value may seem to have been anticipated, almost word for word, by the early English Socialists, there is this important difference between them, that their views rest on a much less solid basis of systematic and closely-reasoned argumentation than do his, whilst in their constructive proposals they shew themselves to be idealists and Utopians. They would doubtless have claimed that their Socialism was in accordance with nature; they would not have claimed, as Marx did for his, that it was in accordance with science."

As will appear below, Mr. Salter himself shows that Marx was essentially unscientific.

The Marxian theory of value has been shown to be hopelessly contradictory and illusory by the "hitherto" critics, and Mr. Salter gives in two chapters (V and VI) a forcible reproduction of their main points. He tries, however, to minimise the effect at the outset by saying that "Marx's theory of value is not really the corner-stone of his economic doctrine." It may be rejoined that in the first volume of *Capital*—the only one completed by Marx himself and the volume most commonly quoted—it was not only the corner-stone but the chief part of the building. Unluckily, when Engels compiled the third volume out of the materials left by Marx there was disclosed "the great contradiction" that dynamited the old corner-stone, and the remains were "avowedly abandoned." The worst of it is that, as Mr. Salter shows in the concluding part of the chapter entitled "Surplus Value and the

Great Contradiction," the followers of Marx have continued to base the exploitation of labour on this "avowedly abandoned" theory of surplus value.

The followers of Marx do not read his *Capital* for themselves. They are impressed by the appearance of scientific elaboration. They think that Marx has "proved" what the common people had always believed.

The central idea of the exploitation of labour was expressed by Sir Thomas More in his *Utopia* (first published in Latin, 1516), with far more moving force than by Marx. In the conclusion of the narrative the discoverer of Utopia—Raphael Hythloday—is made to contrast the economic system of that commonwealth with that of other nations.[1] "In all other places, whilst people speak of a Commonwealth, every man seeks only his own wealth. . . . I would gladly hear any man compare the justice, that is amongst them [the Utopists] with that of all other nations; among whom, may I perish, if I see anything that looks either like justice or equity: for what justice is there in this, that a nobleman, a goldsmith, a banker, or any other man that does nothing at all, or, at the best, is employed in things that are of no great use to the public, should live in great luxury and splendour on what is so ill acquired; and a mean man, a carter, a smith or a ploughman, that works harder than even the beasts themselves and is employed in labours so necessary that no commonwealth could hold out a year without them, can only earn so poor a livelihood and must lead so miserable a life that the condition of the beasts is much better than theirs? For as the beasts do not work so constantly, so they feed almost as well and with more pleasure; and have no anxiety about what is to come, whilst these men are oppressed by a barren and fruitless employment and tormented by the apprehension of want in their old age. . . . The richer sort are often endeavouring to bring the hire of labourers lower not only by their fraudulent practices, but by the laws which they procure to be made to that effect. . . . Therefore I must say that, as I hope for mercy, I can have no other notion of all the governments that I see or know than that they are a conspiracy of the rich who, on the pretence of managing the public, only pursue their private ends and devise all the ways and arts they can find out; first that they may without danger preserve all that they have so ill acquired, and then that they may engage the poor to toil and

[1] Bishop Burnet's translation, p. 204 (edition 1808).

labour for them at as low rates as possible, and oppress them as much as they please. . . ."

It is refreshing to turn from the "scientific" camouflage of Marx to the direct appeal of the father of the English Utopists. And, after all, it is the Utopists and not the class-hatredists who amongst the Socialists have had any real influence on the advancement of economic thought and social improvements.

It is time, however, to return to Mr. Salter's version of Marx. He consoles the Marxians for the loss of one corner-stone by admitting and admiring the solidity of another. "The materialistic conception of history has been hailed as the corner-stone of the Marxian edifice, *and so indeed it is.*" Mr. Salter himself points out so many cracks and fissures in this corner-stone that the wonder is how he can bring himself to such extravagant eulogy on this part of the work of Marx. "It was a great achievement to show *once for all* that there was evolution in the social as well as in the physical world. This meant a *new hope for countless millions.* The Socialists found themselves no longer a struggling handful of middle-class enthusiasts (which was all they were in pre-Marxian days), but part of a huge and ever-growing multitude. On the other hand, Marx gave to Socialism not merely an accession of numerical strength, but what it needed far more, emancipation from Utopianism. He made clear to the world that there was a third alternative to the static, immobile social order of the economists and the impossible reconstructions of the idealists in the shape of a world of change, evolving according to laws which were definite, natural and scientifically ascertainable." In the very next sentence Mr. Salter, according to his usual practice, abandons the "once for all" and shatters the new hope. "The comparative weakness of Marx's constructive ideas does not detract from the great work he actually accomplished, but, of course, it makes him a less valuable guide for the problems of the present day. . . . Many to-day will be less inclined to be influenced by him than they otherwise might be, owing to the very minor place he concedes to ethical considerations. . . . A more outspoken appeal to the idea of social service would have put his teaching in closer touch with the spirit of our age, which is, however shy we may be of admitting it, predominantly ethical." Marx, we are told, was a scientist, and "all scientists are *un*moral, even as Nature herself is." The meaning and the force of the *un*morality of Marx are best shown by the quotation by Mr. Salter from a letter by Marx to Engels. Mr. Salter has deserved well of the republic of letters

by making this extract available and putting in italics the essential point. Marx is describing the alternative draft he prepared for the first International. "My suggestions were all accepted by the Committee; they merely instructed me to introduce in the preamble to the statutes a couple of clauses about rights and duties and about truth, justice and morality, *but I have put them in in such a way that they won't be able to do much harm.*"

In dealing with the materialistic conception of history (Chapter VII), Mr. Salter observes that, as a serious subject of study, economic history dates only from the last quarter of the nineteenth century. Mr. Salter has forgotten Adam Smith. He should refresh his memory by looking at the Preface to the edition of the *Wealth of Nations*, by Thorold Rogers (Rogers and Cunningham are called by Mr. Salter the real fathers of economic history), or, better still, he should read the original. The real Adam Smith was a master of moral philosophy as well as of economic history. He showed that he fully realised the strength and the limitations of the historical method long before the name was invented.

On Mr. Salter's own admissions, Marx was not in any accepted sense scientific. "It must be confessed that when Marx undertook 'scientific' enquiries it was with the intention of justifying preconceived ideas. This was his weakness all through." This criticism was called forth by the failure of the Marxian prophecies. Marx is certainly one of the most famous of false prophets. "He claimed to see irresistible tendencies which were not tendencies at all. He was always dogmatic and usually plausible, but very often wrong; nor was he as ready to acknowledge his mistakes as was Engels." As the interpretation of history was biassed, so, naturally, were the prophecies supposed to be founded on it.

Mr. Salter knows so well the unanswered criticisms of the fundamental ideas and methods of Marx, and puts his own version of them so effectively, that the reader is amazed at the lavish praise bestowed and the attempts to minimise the evil results of his unscientific and *un*moral dogmatism. It is astonishing, also, to find that one who has read and epitomised the argument of Lenin can write of Marx in the general conclusion: "Individual phrases may be found in Marx to justify an appeal to violence or to economic (? direct) action, but these are contrary to the whole spirit of his teaching; political action is what he advocates, if for no other reason than that it is most practicable."

In the last number of this JOURNAL, in a review of A. Loria's book on Marx, Professor Edgeworth concludes by saying that it is a psychological question of some practical importance how the same mind could hold at the same time with respect to the same person judgments so different. The same question is forced on the reader of Mr. Salter's book. With Mr. Salter the antidote follows the dote with such rhythmical regularity that it may be thought that the general effect must be innocuous. It is to be feared, however, that the people whose idea of science (like that of Marx) is the confirmation of pre-established opinions will accept the eulogies and pass by the "mistakes."

In these days a writer who has understood the weaknesses and the contradictions of Marx ought to have the courage to show the real balance of the account. There can be no real progress in any science, economic or other, unless exploded fallacies are allowed to disappear into the limbo prepared for vanities that have had their day.

J. S. NICHOLSON

The Industrial and Commercial Revolutions in Great Britain during the Nineteenth Century. By L. C. A. Knowles, Litt.D. (London: Routledge & Co. Pp. xii + 412. Price 6s. 6d. net.)

DEDICATED to the memory of Dr. Cunningham, for width and variety of knowledge Mrs. Knowles' book justifies its dedication. Its point of view also is in the Cunningham tradition. "I have wished especially to lay stress on the world position of the United Kingdom during the past century" (p. vii): so this is not, like some of the lesser text-books which one has seen latterly, a *réchauffée* of *The History of Trade Unionism* by B. and S. Webb, nor yet, like some recent larger books above the "text" level, an indictment of the early nineteenth century from a rather superior platform in the twentieth. Its centuries are in perspective, and its kingdoms not out of drawing. This is, of course, what would be expected from the author; but the international setting is an innovation in English economic history.

Whether to judge it as a text-book or as something more is a difficulty. In form—synopses; (*a*), (*b*), (*c*); five causes of this and four causes of that—it is the text-book. And in format it is very much the text-book, of the kind in which one would not expect to find original scholarship if one happened not to

know the author. *Per contra*, there are 400 pp. of sound learning for six and sixpence. They are divided among an introduction and six "parts." The Introduction—*The Principal Features of Nineteenth-century Economic Development*—is a remarkable international survey, striking the keynote of the book. The first part (pp. 15–109) discusses *the Industrial Revolution caused by Machinery* as it ought to be discussed, *i. e.* from the point of view of its causation, pace, and ultimate significance. In spite of the supposed familiarity of the subject, this is a bit of really original work, and it gains on almost every page from its author's international outlook. The ordinary books never tell students, for instance, that "in no other country was the transition so slow as in this country" (p. 78); but it is probably true, though one would like to argue with Mrs. Knowles the case of France. Nor do such books always make so clear as Mrs. Knowles does that War, and not the Industrial Revolution or Capitalism, was the cause of the worst distresses. Nor, again, does one often get even the beginnings of a well-informed discussion as to why the Revolution began here, and not in Holland or in France (p. 26 *sqq.*). Nor yet, again, such a full justification, based on a broad historical survey, of the thesis—"the factory system did not create the evils of overwork and child labour . . . nor did it create the insanitary state of the towns, which had existed since the Middle Ages" (p. 392). An interesting point, made in this connection, is that the failure of the early nineteenth century to deal with some obvious evils was due less to apathy than to unavoidable incompetence. Until certain discoveries and inventions had been made, all the goodwill and all the democracy in the world would not have made London sanitary.

This section contains, among many other good things, a discussion of the transition from family earnings to individual earnings, as usual with international comparisons (pp. 62, etc.), and a discussion of the effect of the eighteenth-century prohibition of Indian cotton goods on the adoption of machinery (p. 43). One wishes there had been room to work this out more fully.

Part III—*Industrial and Commercial Policy in Great Britain during the Nineteenth Century*—is more of a summary than Part II, though a most useful summary. It is perhaps a little crowded and so not always so clear as it might be; but it is all first-hand work. The crowded feeling increases in some of the later parts, as was perhaps inevitable when, for example, the effects of mechanical transport on British and Irish Agriculture

have to be set out in thirty pages (Part VII). The two most striking of the later Parts are IV, *The Commercial Revolution caused by Mechanical Transport*, and VI, *The Industrial and Commercial Revolutions and the New Constructive Imperialism*, a section which one wishes Dr. Cunningham could have lived to read, so entirely would he have sympathised with it. Lest those who recall his stout party spirit should misunderstand, it should be added that the section is thoroughly impartial--indeed shows party policies often to have been little better than froth on the economic waves. Like every other section, this draws on an unusually wide range of original authorities.

It is a pity that the proof-reading is not on the same level as the learning. Perhaps the occurrence of one rather elaborate sentence on pp. 86–7 and again on p. 89 is a relic of a device familiar to the oral teacher; but in a book it is unfortunate. Grammar is sometimes defied and the rules of punctuation often flouted—*e.g.* (p. 363)—England "had not to face the task of training an ignorant peasantry to farm as she had got rid of her small farmers as the typical features of her agriculture, by the first quarter of the nineteenth century, nor had she to teach her big farmers better methods, English agriculture was the model for the world," etc. These are small matters, perhaps, but their recurrence impairs the flavour of a good book and—in so far as that book is to be judged as a text-book--might accelerate the divorce, always threatening, between learning and letters.

A few statements of fact may be queried, for the later editions which are certain to be demanded. P. 202, line 2, seems not to make sense: "102 weeks" can hardly be correct. On p. 208, is not the statement that "the control of the world's metal market was in the hands of a group of German metal traders" too sweeping? I do not think it was ever contended that those firms controlled what the Munitions people called "ferrous" metals. P. 244, "the canals . . . were a great financial success." Not all. Mrs. Knowles only quotes the dividends of those that were. For once, she seems to have overlooked a piece of recent work—Jackman's *Transportation in Modern England*. The statements that "in Germany" the railways "were transferred from private to State ownership" (p. 13), and that "in Germany, the existing railways came into the hands of the various State Governments after 1870" (p. 254), are not quite correct. Hanover, for one, always had State railways. It is not, I think, true that "each of" the reciprocity treaties negotiated between

1825 and 1843 "meant the abandonment of some portion of the Navigation Acts" (p. 297), unless the term Navigation Acts is used very widely and loosely. The statement (p. 74) that "it was not until 1820 that the tools were invented with which machines could be rapidly made" is hard to interpret. The inventions which resulted in machine tools were not, of course, all made in one year; and I am not sure which of them Mrs. Knowles has in mind under the year 1820. Some important inventions in this series were made twenty years earlier. But the series has not received from economic historians the loving attention never denied to jennies, water frames and mules.

J. H. CLAPHAM

An Essay on Mediæval Economic Teaching. By GEORGE O'BRIEN, Litt.D., M.R.I.A. (London: Longmans, Green & Co. Pp. 242. Price 12*s.* 6*d.*)

IN this work Dr. O'Brien makes a distinctly useful contribution to economic literature. To set the economic theories of the thirteenth and fourteenth centuries in their true light might seem at first sight a task hardly worth the labour involved. It has been the custom to regard the speculations of mediæval theologians and philosophers on economic questions as of little value for scientific purposes. For the student of ethical problems they may have a certain interest. But for the economist, as such, Ethics is irrelevant; even the principle of honesty in commercial dealings is of importance to him only in so far as it is the policy that pays best. There was a time when this was the accepted view, and there may still be those who hold it. But the study of rights and wrongs in the distribution of wealth which the movements of our own day force upon the economist has restored Ethics to its rightful place in economic science. Fundamentally the issues on which the burning controversies of to-day are waged are ethical in character. To what other branch of moral science can we assign the passionately disputed questions affecting claims to rent, interest, profits and wages?

In mediæval times these questions were discussed chiefly in their ethical aspect, for the thinkers of those days were, before all else, theologians and moralists. The master minds of the period brought to their investigations a keenness of intellect and a penetrating power of analysis which have not been surpassed in succeeding centuries. Their theories on the topics mentioned are products of clear and definite thought, and, as such, they cannot

fail to aid the serious student in dealing with the problems they sought to solve, and which are still with us.

Dr. O'Brien has made their teachings accessible to the latter-day economist by gathering them from the treatises of masters and commentators through which they are scattered, and presenting them to us as a complete and coherent body of doctrine. For this service he deserves the thanks of all who are in search of a sound philosophy of social life.

Human society is held together by the dependence of men on one another for everything that lifts them above the brute. No one is sufficient for himself. Exchange of goods and services is not merely essential to man's material welfare, it is the ultimate basis on which society rests. Exchange is the transfer to another of that which is mine on condition of receiving some goods possessed by that other. The "mineness" and "thineness" attaching to things of which men dispose is called property or ownership. The conception of property is thus fundamental; apart from it exchange is inconceivable. It applies to everything which man can give for the benefit of another—external goods of all kinds, even the service of his own faculties of mind and body. This conception is subjected to detailed analysis by the scholastic writers. It is shown to be a natural *right*, a liberty to act within a certain sphere, and in respect of certain objects guaranteed to the individual by the moral law which Nature itself dictates. To secure that liberty to the individual the same law imposes on all others the obligation to respect it and abstain from violating it. The material force necessary to protect this liberty may be present, or it may not. But as the primary and essential basis of the right is moral law, the validity of the right is not affected by the presence or absence of the means of enforcing it. The right of ownership or property thus established is the foundation and starting-point for the scholastics in their treatment of exchange in all its forms; on this rest their theories of rent, prices, wages, profits and interest.

The right of property implies liberty of gift, the bestowing of commodities or services without stipulation or claim for a return. On this we need not dwell, it offers no material for controversy, and though in domestic life and in schemes of benevolence public and private it enters largely, it has no place in the processes of exchange with which human intercourse is so largely concerned. In these each of the parties to the transaction gives of his own to the other. The something each receives is, in his estimate, of at least the equivalent in value of what he gives; otherwise he

would not consent to the exchange. Equivalence in value of the things exchanged is, for the scholastics, the canon by which the ethical character of all forms of exchange is governed. If that which is received is equal in value to that which is given, justice, equity, fair dealing are secured. There remains only the problem of determining how, in specific cases, the value on each side of the transaction is ascertained.

We may now briefly examine how these general principles were applied to the several forms of contract. We begin with the letting contract, of which land-letting is a type. Assuming that ownership in land, buildings, machinery and other material goods employed in production is established, we observe that the use of these means and instruments of production is separable from the ownership, that ownership of them may be retained by one person while the productive use is allowed to another. When an arrangement of this kind is made, the owner of the means of production contributes through that which is his to the creation of the resulting wealth, and in this, as co-contributor with the user, he is entitled to share. What his share shall be depends upon the extent to which his contribution has influenced the amount of the product. In the letting of land, for example, that contribution will vary as the fertility of the soil varies, and the owner's share will, according to the rule of equity, be proportionately greater or less.

From this position there is but a step to Ricardo's theory of rent. The land which yields a product barely sufficient to remunerate the labour or other cost of cultivation cannot be let for a rent; in a system of free industry no one would take it and pay a rent for its use; to employ the terms now current, land on the margin of cultivation yields no rent. This further step in developing the theory of rent was not taken by the mediæval writers, the feudal system gave little opportunity for the study of free dealings in land.

The rent contract was evidently regarded by the scholastics as a form of partnership under which the owner of land contributed one of the factors of production, the cultivator the others. The principles which justified the contract thus understood justified every other form of partnership, even that in which the owner of the material resources put nothing of his own exertions into the productive operations. In a trading enterprise, for instance, the division of the profits between the partners was governed by the rule of equity that each should receive a share proportioned to his contribution in goods, labour or other-

wise to the undertaking—a rule more easily stated in the abstract than applied in the concrete.

Justifying rent on the ground that the landowner retains his right of ownership throughout the process of cultivation, the scholastic moralists might be expected to adopt the same principle in estimating the claim of the labourer for wages. He, too, contributes an important factor, wholly his own, to the production of a given commodity: why should he not be regarded as a partner of the capitalist, and receive a share of the product (or its price) proportioned to his contribution? This view of the relation of employed to employer appears to underlie the claim now so frequently urged that the wages of the labourer shall increase with a rise in the market price of the commodity he helps to produce. But, in the passages quoted by Dr. O'Brien from St. Thomas Aquinas and others, labour seems to be regarded as a thing which is bought and sold like market wares, and of which wages is the price. These moralists insist, no doubt, that the wages paid the labourer shall be sufficient to maintain him in decent comfort, but to adopt this standard is to abandon the conception of wages as the equivalent in value of the service given, and to measure the claims of the labourer by the extent of his needs, not by the value of his work. On the whole, the mediæval teaching on the wage contract is inadequate and incomplete. This, however, is not to say that it is at all less satisfying than any of the theories that have succeeded it.

To the question of the just price of goods the ownership of which is wholly ceded in the exchange, the Schoolmen gave a more careful study. Here the doctrine of equivalence in value was fully applied. The just price of a commodity is an amount of money equal in value to that of the goods received. How is that amount to be determined? The immediate criterion is the *communis estimatio*. Not the estimate formed by the individual seller or the individual buyer, each of whom is liable to be influenced by considerations peculiar to himself, but the estimate of the average man who takes account of conditions generally prevailing, and bases his judgment on these only. This answer is helpful as far as it goes. But it suggests at once a further question, which touches the essence of the problem: What are the considerations on which this common estimate rests? The reply would seem to be: On the cost of production, of which labour is a chief element, on the one side; and on the *indigentia*, or need of the commodity, on the other. This solution of the problem does not appear to differ materially from that offered

to-day by such economists as Professor Marshall. The mediæval moralists would, however, have the relation between cost and demand as expressed in price ascertained by the considered judgment of the competent, and would even give to that finding the force of law; the modern economist would leave the decision to the interaction of the opposed interests of seller and buyer in the open market. The first method was feasible in small communities where producer and consumer were in touch with one another; how it could be applied to the world-market of to-day, it would be difficult to suggest.

The teaching of the Schoolmen on the subject of usury is presented to us by Dr. O'Brien with singular clearness and force. As we have seen, they drew a well-defined distinction between the sale contract, the letting contract, and the loan (*mutuum*) contract. In the first the ownership of a commodity is transferred from seller to buyer for a money consideration, and the transaction is completed; in the second the use of an object without the ownership is allowed, and payment for the use required on the grounds already explained. In the third contract the ownership—of a sum of money, let us say—is transferred by the possessor to the borrower, but with the obligation of refunding in due time the sum lent. The money or other object lent becomes the property of the borrower, and to any production of wealth effected by consuming it nothing which is the property of the lender now contributes. When the money lent is returned to him, on what ground of equity can he claim a share in the wealth the loan may have been used to produce? He may rightfully claim compensation for any loss he sustains, or gain he forgoes, or risk he undertakes in making the loan. But for the loan, as such, he cannot equitably exact compensation. To put the matter in another way: Let us assume (*a*) that the owner cannot himself put his money to use, that it is part of a hoard; (*b*) that his security is perfect, and no risk of loss is incurred; when the loan is repaid, what of his own has he given for which he can rightfully claim a further equivalent? That the loan has been a benefit to the borrower does not affect the question; payment is due for what we give of our own, not for what others enjoy or suffer.

Loans made under the conditions just indicated were those for which, the scholastic moralists held, payment could not, in equity, be required. If we examine the sections of the Money-lenders Acts which provide relief for the borrower when the terms of the loan contract are "harsh and unconscionable," we shall

probably find reason to believe that the mediæval notions of justice in lending and borrowing are not wholly obsolete.

With the rise and growth of world commerce, and the consequent general facilities for investment in industrial and commercial enterprises, the older doctrines on interest had to be applied in new conditions. The owner of idle money could now employ it remuneratively in one or other of the undertakings for which manufacture and trade invited the co-operation of capitalists. To give his money as a loan was to forgo the opportunity of gain thus offered him, and for this sacrifice of his interests he was, according to the ethics of the Schoolmen, entitled to compensation.

Let us imagine a mediæval jurist brought back from the realm to which good lawyers pass, and set to preside in a modern court in which a borrower seeks relief from what he regards as the exactions of a money-lender. His contract binds the applicant to pay an interest of, let us say, 60 per cent. on the sum borrowed; the security he could offer was, it is shown, indifferent, as sheer necessity had forced him to turn to the money-lender. What would be the award of the judge, assuming him to be guided solely by the mediæval canons of right? He would probably decide that as the risk was so great he would allow 10 per cent. under this head, and that as the current rate obtainable on the sound commercial investments open to the lender was about 5 per cent., he would allow that amount as interest on the loan; in all 15 per cent.

The award would be in strict accord with the principles of equity the judge had learned from his mediæval text-books; and it would, moreover, reproduce in every detail a recent judgment of the High Court of England, in the appeal of a borrower for relief from the obligations imposed by his contract with a money-lender.

T. A. FINLAY

Les Finances de Guerre de l'Allemagne. By CHARLES RIST, Professeur à la faculté de Droit de Paris. (Paris: Payot. Pp. 294. 8vo. Price 15 francs.)

PROFESSOR RIST, best known among us by the *Histoire des doctrines économiques* (translated into English) and the *Revue d'économie politique*, in each of which he has joined his forces with those of Professor Gide, was associated during the War with Professor Lichtenberger of the Sorbonne in editing the

Documents de la guerre. His recent articles in the French reviews have shown his competence as an expositor of financial questions, and prepared us to welcome this critical account of German War Finance. The volume is ably conceived and executed, and well documented, and is written with admirable lucidity, dignity, and moderation.

Lucidity and sincerity are the first essentials in financial statements, knowledge the first essential in financial criticism. The arts of camouflage, long practised by Germany in politics and diplomacy, were elaborately employed by her during the War in military and financial operations. The outbreak of war severed our German communications. Personal investigation by visit or correspondence was no longer possible. German documents were not easily obtainable or easily tested. We saw through a veil darkly, and on the other side of the veil a smoke cloud of deliberate mystification obscured the facts to German, and still more to foreign, eyes. Those who knew something of German government, German finance, and German financiers, and of the close co-operation of all three in times of peace, were sceptical of the raillery showered by Allied writers upon the supposed stupidity and futility of German financial expedients. The light which is now beginning to spread shows the remarkable ability with which, given her circumstances, Germany managed the War on its financial side. To disparage your enemy's resources and prophesy his imminent financial collapse is a method of giving heart to your supporters which loses its power to impress the neutral and to depress the adversary when days, months, and years follow one another without its fulfilment. Prestige was jealously guarded on the other side. Germany could boast that she had not had recourse to a legal moratorium: that the Reichsbank had maintained its legal one-third of reserve throughout; that until 1916 no war taxation was imposed; that the War loans, at prearranged intervals of six months, were sensationally subscribed at 5 per cent. at a nearly constant issue price little below par; and if the foreign exchanges were against her, and the national debt was growing rapidly, these were only temporary difficulties. The hoped-for victory would remove the blockade, revive German claims abroad, reopen her foreign markets, and restore the exchange. The debt (almost entirely internal) was a mere suspense account, amply covered by the indemnity to be extracted from the vanquished Allies. The huge increase in deposits during the War and the power to aid her confederates with men, supplies, and money were

pointed to as further convincing evidence of Germany's financial strength.

How were these impressive results attained? Everything had been carefully prepared and—when the time came—worked out, almost to the letter, according to plan. From the moment of the Agadir incident the Reichsbank began vigorously to strengthen its gold reserve. Small notes were introduced. Gold was bought at a loss. Reserves were more centralised. Commitments in possibly enemy countries were reduced and shortened. The machinery of State bonds and the organisation of branches of Loan offices throughout the country were mapped out in advance. So far as possible, all was ready for war on the financial side. We know now that the results were more striking in appearance than in reality. The Government bonds, being legal money, were received into the reserve as cover for Reichsbank notes, though themselves uncovered. The bonds of the Loan offices were similarly treated, though secured only upon non-liquid assets. The increased deposits were due partly to the inability to carry on normal business, and especially foreign business, partly to war profits, partly to inflated currency causes. The budgets were balanced by transferring the expenses of the Army, Navy, Colonies, and Military Justice entirely to the extraordinary War budget account, and by taking for other departments—even for the Customs—the same figures both for revenue and expenditure as in 1914, on the pretext that trustworthy estimates were impossible. The figures of exports and imports, of Government borrowings from the bank, and the index-number of prices were suppressed. The enormous output of paper money, however cleverly Germany saved her face for a time, was doing its deadly work none the less, with results which are now evident.

It is not possible to comment here in detail upon the facts and figures, based upon German authorities, which are set out in detail by Professor Rist. His explanation of the difficulties encountered, the expedients employed, and their degree of success or failure is always clear, though not always complete in important particulars. The reader must turn to other sources to learn that the first Loan was issued at 97½, the second at 98½, the third at 99, etc. The volume bears signs of hasty revision. The balance of trade on page 232 is 200 millions of marks on each side in excess of the items tabulated. It is not evident in some cases whether the author is speaking of marks or francs. The index is four pages out for the second half of the book. It

is to be hoped that a second edition will admit of correction of small blemishes of this kind.

The chapters on foreign exchange and on the indemnity question are especially interesting. In comparing the positions of France and Germany it is suggested that while the mechanism of production has in France been brutally injured and in many cases wantonly destroyed, Germany is able to resume work at the point where it was stopped by the War. This is true of France, but far from true of Germany, lacking as she does the capital to drive her machinery of trade. But this throws into stronger relief the author's view that it is not in the interest of France to strangle German commerce. The statistics of French and German taxation are compared without analysis of such a character as is necessary to show the unlikeness of the two sets of figures or of the purposes to which the taxes are devoted. We are, however, told so much that is interesting and useful that it would be ungracious to lay much stress upon omissions of detail which, in a work of this character, are prone to lack elabora ion unless they are essential to the development of the central argument.

HENRY HIGGS

Introduction to the Doctrine of the Stability in Value of Currency. (Inleiding tot de Leer van de Waardevastheid van het Geld.) By DR. G. M. VERRIJN STUART. ('s Gravenhage: Martinus Nijhoff. 1919. Pp. 186.)

THIS book, which is the thesis for which the son of Professor Verrijn Stuart was granted his doctor's degree, is one of the few valuable treatises on money which have appeared in Holland in the course of the last five years, amid an appalling mass of amateur rubbish. It may be called a valuable treatise, even if —in the opinion of the present reviewer—it does not wholly disentangle the knots of the money problem; for it goes to the roots of questions with that honest love of truth which is the first condition of scientific discovery; and it shows, moreover, an extensive knowledge of literature. Any book which reveals these qualities in its author will tend to clear the ground for further progress.

The book covers almost the whole ground of monetary theory, including a critical survey of the literature, since a theory about the stability in value of money necessarily proceeds from a theory about the value of money. It is not possible, therefore, in this

short review to do more than point out the most interesting passages.

Much misunderstanding in the controversies about monetary theory arises from lack of precision in the use of terms. Some of this the author clears away categorically. He asserts that Knapp's theory, which has been thought so much of, contributes nothing to the economist, as it only expresses a view as to the reason why some objects are used as money. It explains nothing about the value of money.

As to the definition of money, the author considers that a definition of any value must yield a basis for a theory of prices. This brings him to the conclusion, which is as true as it is simple, that anything is money which acts as a medium of exchange. Stamps, for example, do not usually constitute money, but they may in certain circumstances be used as such; in this case they are money; they have the same effect on prices as other money.

The disputes, first, between those who regard money as an abstract unit of account and those who consider it to be a concrete good; secondly, between those who hold the so-called "Waaren" (commodity) theory and the "Anweisungs" (claim) theory; thirdly, between the so-called nominalists and metallists; and, finally, the controversies about the quantity theory —all arise simply from confusion of thought. The author is not equally successful in each case in clearing his ground. He rejects the theory of the abstract unit on the ground that "the parties concerned could never be compelled to content themselves with an abstraction"; from this he concludes that if money is not an abstraction it must be a commodity. He takes the "Anweisung" theory to be identical with the abstract-unit theory; he is of opinion that money depends for its existence upon commodities, which already have value in use. Yet, at the same time, he rejects metallism, and accepts not only the possibility, but even—with some reserve—the desirability, of an entirely a-metallic currency; and finally the conception of a society without a currency at all, using only an abstract unit of account.

I can see no difference between this view and the theory of the abstract unit, unless it be that up till now we have used concrete currency, even metal, to represent the abstract unit; but this fact, of course, those who speak of an abstract unit do not intend to deny.

Meanwhile, as Dr. Stuart regards money as a commodity,

he is confronted with the same problem as most theorists of how to reconcile the doctrine of marginal value with that of the quantity theory. He tries to escape by compromise: the quantity theory must not be rejected altogether, nor must it be strictly adhered to. This is very unsatisfactory. On the other hand, the author makes an heroic effort to apply the theory of final utility to money, disregarding the fact that the utility of money depends on its value, so that its value can never depend on its utility. This effort, like that of Mises, and others before him, is foredoomed to failure.

The author is misled on this point by approaching the subject in imitation of Boehm Bawerk, with the concept of an "individual value in exchange." This concept is necessarily delusive, as "value in exchange" is only a socialised individual value; and what is called "individual value in exchange"—*e.g.* of money—only means "the individual value of the commodities that are taken in exchange for the money." Further, it can easily be proved that the quantity theory and the final-utility theory can never apply at the same time, as they lead to contrary results. According to the final-utility theory, value *diminished* gradually to zero; whereas, in the quantity theory, it is *divided*, and therefore can never reach zero. However many krones the Austrian Government issues, so long as they really circulate, they will always have some value, however small.

Half a dozen other proofs may be given to show that final utility is not applicable to money—in other words, that money is not a commodity, and that it functions otherwise than as a commodity. Thus a nation is not enriched by the creation of paper money; the value of money has nothing to do with the nature of man and his wants; the intrinsic value of currency may differ from its money value; money would be of no use in a society where commodities are bartered, or in an isolated establishment (Einzelwirtschaft); that it cannot be regarded as a capital-goods Mises and Bortkiewicz have amply proved; the value of money is changed by one factor only, viz., volume; the value of commodities may be changed by two factors, viz., volume and wants. Some years ago Wicksell came to the conclusion that final utility is not applicable to money, but he made no further use of this discovery.

The only way out of these difficulties is to regard money—in imitation of Knies, who again unfortunately made no further use of his classification—as a third category in addition to consumption-goods and capital-goods; and as "Anweisungen"

(claims), on the totality of consumption-goods. This comes to much the same thing as the "abstract unit," but the term is clearer; moreover, those who initiated the theory of the abstract unit vitiated it by the untenable contention that there exists no value problem for money. Although money is not a commodity, and in this sense has no value, it is nevertheless a claim on a commodity, and the problem remains as to what factors determine the value of this commodity. If there is no value problem in the strictest sense of the words, there is a purchasing-power problem, and this comes to precisely the same thing.

Here, again, there has been verbal confusion: the word "claim" has been taken in its juridical sense. Of course, this is mistaken: it is meant, in the economic sense, as a power to dispose of a certain part of the stock of the community. As soon as this claim is put in writing some material is needed, be it only the paper of the bank-note or of the balance sheet, or the gold, silver or copper of coin. That part of these materials, however, which is used for making money must be regarded as belonging to a third category. This classification, like all others in economic theory, only serves the purpose of enabling us to see clearly into the problem.

In a very valuable little treatise on *Claims and Titles from the Point of View of the Economic Doctrine of Goods*, Boehm Bawerk has pointed out the error of confounding the strictly individual value of a claim—which is a merely apparent value—with the real value; which, in addition to the individual value, is the value of a commodity to the community. It is astonishing that the analogy in the case of money has never occurred to him. It stands to reason that no explanation of the purchasing power of metallic standard money is complete without the application of the final-utility theory, since the purchasing power of money must be equivalent to the value of the metal as a commodity.

The "Anweisung" (claim) theory immediately leads to the quantity theory, *which is the only theory of the value of money.* All objections to this theory are confined to its practical utility. But those who deny this utility always disregard its practical truth, where it might be of use: had it been applied in these times, we should not have been haunted by the evils of inflation. This is surely ample merit, and in the end every capable theorist uses the theory because he cannot do without it. But what we want is a great deal of detailed study; and it is high time for there to be an end of useless quibbling, and for effort to be directed to developing the quantity theory in the

way Schumpeter has done in his admirable study, *Das Socialprodukt und die Rechenpfennige*, and—as I gather from the review in this JOURNAL—Mr. Hawtrey has done in his book on *Currency and Credit*.

The controversy is ultimately practical: a currency might conceivably be initiated without any known standard of value in the form of a useful commodity existing at all; but it would be hardly practicable, for there would be great confusion before people had found out what they could sell and buy for the unit. In the same way, it is solely a question of practice for currency to be attached in value to gold. There is no theoretical dissension between metallists and nominalists.

But, to return to Dr. Stuart, as regards the causes that determine the quantity of credit or banking money, the author agrees with Wicksell and others that these are to be found in the rate of discount. If bank discount is below the real interest, credit will increase and prices will rise. The author consequently blames the Dutch bank directors for maintaining for several years past a low discount, in spite of a steadily increasing circulation, and this without any clear motive, except, perhaps, a Micawber hope that something will turn up to save the guilder.

In the second part of his work the author gives a very interesting critical survey of different plans for stabilising currency, which in his opinion means that prices must remain stable. This ideal can never be attained, but perhaps we may get nearer to it than the gold standard permits. Dr. Stuart rejects the "tabular standard," which consists in changing the amounts of debts periodically, according to the index-numbers —an old idea dating from the eighteenth century, and taken up by no less an economist than Jevons.

Against Fisher's stabilised dollar he urges that the volume of credits would not depend ultimately on the volume of gold. This I cannot altogether admit; but it must be granted that the proportion between gold and credits may undergo considerable change. There is a much weightier objection, however: the system would only act by fits and starts. I entirely agree with Dr. Stuart, therefore, that if in the future an attempt to stabilise money should be made, a far better system would be an entirely free currency regulated by means of bank discounts determined by the index-numbers. In this case, of course, the system of index-numbers would have to be brought to a stage of much greater perfection than has been so far achieved.

It is a very great pity that a book like this, which contains

so much knowledge, and on which such arduous study has been expended, should only be available to those who understand Dutch. Valuable contributions, such as this treatise, should have the whole scientific economic world as their public.

E. C. VAN DORP

Modern Irish Trade and Industry. By E. J. RIORDAN, with an Historical Introduction by G. O'Brien, Litt.D. (London: Methuen. 1920. Pp. xii + 335. 7/6 net.)

A COMPREHENSIVE review of the economic conditions of a country carried out in the calm and scientific manner of de Foville in his *La France Économique* is always of service to the student who desires to have adequate material for his reasoning to rest on. The book before us is not quite of this character. It is rather an attempt to put forward the views of the Society of which the author is Secretary, and to advocate the cause of Irish industries. In the pursuit of this object Mr. Riordan has brought together a large body of interesting facts, which may be used even by those who are not able to accept all his judgments. The broad result is undoubtedly that there has been a quite definite advance in some important branches of Irish economic activity. While the old-established employments have progressed, there are indications of new lines being introduced and changes in localisation. Thus, there is the new growth of shipbuilding, elsewhere than in Belfast. There is also the marked reorganisation of the milling industry under the pressure of new conditions of competition. In spite of complaints of slackness, there is evidence of readiness to take up really profitable business. Perhaps the greatest disappointment that the advocates of industrial development have met is the failure in the small local establishment in, *e. g.* the woollen trade. It is only with a struggle that the small manufacturer working in a non-industrial district can keep in existence. Mr. Riordan declares that "The woollen industry is one naturally suited to the country, but if it is to expand to anything like its capable extent, the conservative early-Victorian ideas of so many of its members must be scrapped without delay, organisation on the most up-to-date lines must be adopted, closer working arrangements between the various firms must be entered into, and a far keener spirit of enterprise must be displayed" (p. 134). This sound doctrine is, however, not easy to apply in the case of the scattered mills that are to be found in the southern Irish area.

High organisation is the product of a keen industrial spirit, and some of the most important conditions of rapid progress are wanting. The chapter on "Transit" (XII) gives a good account of the railway system and indicates some of the defects that lower its value to the country. There is but a bare allusion to the post-war situation, which, it may be said, is worse in Ireland than in Great Britain. Irish banking is described, from the material collected by The Departmental Committee on Agricultural Credit, though too much weight is given to the place of the co-operative societies in the Irish credit organisation as a whole.

Mr. Riordan's book raises the question as to the effect of what may be called popular preference in promoting industry. It is indisputable that if there is a strong *effective* sentiment in favour of using home products, there will be a stimulus given to the production of such articles, and it is claimed that the "Irish Industrial Movement" has had that result. Evidence to that effect is given in Chapter XV, derived, curious to say, from Reports of the Chamberlain Tariff Commission. There are two considerations that should be taken into account in estimating the full results of such an expedient. First, is there any high probability of this sentiment of preference being continuously and durably effective? At times of excitement there may be a practical abandonment of the use of certain foreign commodities, but the steady influence of the economic desire for the goods of most value tends to wear out sentiment and to bring into play the various forces of evasion. Secondly, is there not the danger of a reactive effect on other lines of trade than those specially favoured? As the popular preference device is essentially similar to State protection, it is bound to have the like effect on the industries that do not need aid, and these are especially the export ones. For a complete judgment the whole trade area—not merely selected portions—should be surveyed.

The author has secured the services of a competent economic historian—Dr. O'Brien—to supply the historical antecedents of the actual trade situation. We must, however, confess to a feeling of disappointment at the way in which this part of the work has been done. Not only is the whole sketch rather perfunctory, but there are some strange inconsistencies in statement. We read: "The importation of Irish cattle and provisions into England was prohibited, a measure which . . . proved ultimately of the greatest benefit to Ireland by tempting her to develop the foreign provision trade which afterwards proved so lucrative"

(p. 3). Then a few pages later we learn that "The only industry other than the linen that flourished during the early part of the eighteenth century was the provision trade. . . . This industry, though productive of much benefit to those immediately concerned in it, was rather a burden than a benefit to the country as a whole, as it increased the temptation to convert tillage land into pasturage, and consequently to decrease the amount of employment available for the rural population" (p. 8). There is also a difficulty surrounding the statements as to the relative dearness of Irish and English labour (see pp. 18, 19, 22, 46, 47).

The whole "Introduction" is unduly coloured by a belief that "The principal factor which operated to assist or to impede the development of manufactures until the middle of the nineteenth century was the manipulation of protective duties and bounties" (p. 36). We would like to have the opinion of experts on the writer's statement that this "must be obvious to everybody" (*ibid.*).

C. F. BASTABLE

Ireland and the Ulster Legend. By W. A. McKNIGHT, with "Foreword" by Dr. Sophie Bryant. (London: P. S. King. 1921. Pp. 96. 2s. net.)

THE "Legend" which gives the title to Mr. McKnight's compilation of tables is of long standing and has played a large part in the discussion of the merits, economic and other, of the religions and races concerned. In his well-known study of *Protestantism and Catholicism*, E. de Laveleye states: "What a contrast, even in Ireland, between the exclusively Catholic Connaught, and Ulster, where Protestantism prevails! Ulster is enriched by industry, Connaught presents a picture of desolation" (p. 12). What seemed too obvious for discussion to the Belgian economist is to Mr. McKnight a ludicrous falsehood.

Most of the tabular matter lies outside the field of this JOURNAL, and it may be said that the tables that are economic in character are not very convincing. What conclusion can really be drawn from the distribution of holdings in the different Irish provinces? Many small holdings in a set of counties is not a proof of low economic condition. Then, the assessments on land for income-tax depend on the stereotyped Government valuation, which deprives them of a great deal of their apparent force. The truth is that we cannot expect to get anything more than vague indications from such figures as are supplied in this study.

Dr. Bryant is a capable advocate, but she must have felt that her case was one hard to put in a conclusive form. The real service of Mr. McKnight's work is that it shows how slippery are the grounds on which both pro-Ulsterites and anti-Ulsterites have based their confident statements. Instead of appeals to tabulated figures, the use of direct observation after the fashion of Le Play would seem to be the truly fruitful method. The observer must, however, be free from bias and be trained in such work. One result might easily be to prove that the idea of an "Ulster" forming a true economic region of distinct character has, in fact, little or no foundation.

C. F. BASTABLE

British War Finance. By T. J. KIERNAN, M.A. (London: P. S. King. Pp. viii + 134. 5*s.*)

THIS little book is a rather good specimen of its class. The regulations of our modern Universities have created a demand for special studies of the various questions that fall within the scope of each Faculty. The road to a higher Degree than the Bachelor's is by the submission of a Thesis. Hence, the production of economic studies on the many sides of banking, money, trade and industry. Mr. Kiernan has given a clear account of the more prominent phases of the financial activities of the British Government during the recent years of war. He has read the available material and is generally sensible in his judgments. It may be suggested that he lays too much stress on the power of banks to create what he calls "cheque currency." In the long run it is the real, not the fictitious, deposits that form the basis of the credit circulation. The operation of bank overdrafts, though it adds elasticity to the modern credit system, has its effective limits. The criticisms on the laxity of financial administration during the whole war period may be accepted, but the author is hardly just in his statement that, "In general, the Chancellors" (why not "of the Exchequer"?). "especially Mr. McKenna, appear to have deliberately ignored the country at large in the interests of the professional money dealers in London" (pp. 91–2). There is some ground for the assertion that wealth received more consideration than life, as the contrast between the terms of the several Loans and the inadequate pay of the actual fighters goes to show. There is, however, no real distinction to be traced between the different classes of lenders. Some of the pledges made in connection with the greater Loans have not been fully

kept, but there is no evidence of favouritism for the professional dealers in money.

Mr. Kiernan's discussion of the Foreign Exchanges is lucid and accurate, but does not contain any novelties in interpretation. His condemnation of the over-issue of currency as " the means of confusing in a most shameless and unprecedented fashion the monetary and fiscal functions of the State " (p. 33) appears, in the light of monetary history, to be rather over-strained.

C. F. BASTABLE

La Carta Moneta in Italia. By CAMILLO SUPINO. (*L'Italia Nuova, Raccolta di studi economici sociali e politici*, serie B, No. 25). (Bologna: Zanichelli. 1921. Pp. 129.)

FROM Professor Supino's book on the Inductive Method in Political Economy,[1] we should have expected him to give us first the facts, then the principles. Fortunately in the present book he begins with the economic exposition (pp. 1–14). Paper money, he says, is to be severely distinguished from bank-notes, the latter being normally bound up with metallic currency and moving up and down with trade and industry (pp. 7, 8). Paper money is not so. It is an imperfect form of money, which combines two essential attributes, legal tender and inconvertibility. There would be no hardship in its being legal tender if it were not inconvertible, and no hardship in its being inconvertible if it were not legal tender (pp. 8, 9). As it is, the paper money is a forced loan at long term without interest, and its movements depend, not on trade and industry, but on the needs of the State (pp. 9, 10). Accordingly, its circulation, unlike that of the bank-notes, is inelastic (p. 9). Does it not imply a confidence on the people's part that it will one day be redeemed? Yes; but there are three degrees of this confidence. We may (1) have the paper circulation so extended that all belief in redemption vanishes, as in China long ago, in the United States 1780, and in France 1796 (p. 12). We may (2) have depreciated money redeemed at the market value instead of the face value, as in Austria in 1811 and 1892, Russia 1839, 1897, Argentina 1899. We may (3) have the paper money redeemed at face value, as in England in 1821, U.S. 1879, France 1840, 1878, Italy 1883 (p. 13). That the last kind of settlement will be Italy's now, is our author's conviction, and there is every reason to believe it well-founded.[2] Italy's monetary history, like England's, was not unaffected by politics. Till the

[1] 1894. Reviewed in this JOURNAL, 1895, p. 600.
[2] See *The Times* of January 28, 1921, p. 42, " Italy : Some Favourable Factors."

war with Austria in 1866 the country was contented with a maximum of coin and a minimum of paper, having in 1865 1000 millions of *lire* (£40,000,000) in coin and 265 millions (say £10,000,000) in paper (p. 15).

What happened after that time is told more at length in the Professor's earlier book, the History of Bank Circulation in Italy.[1] Suspension of cash payments entered, not to quit till 1883, and not wholly then. It was not till the end of the century that Italy's note circulation, whether of State or banks, became sound. At the beginning of 1914 the financial situation was very tolerable. The War immediately deranged both trade and finance, though Italy did not herself enter the War till the summer of 1915. Thenceforward there is a family likeness between her experience and our own. The march of events is well described (pp. 41 *seq.*). There is first the embarrassing change from a peace to a war economy, not more embarrassing than the later change, still in progress, from a war to a peace economy. On the first news of the great event traffic on sea and land was paralysed; there was an abrupt stoppage of nearly all industries and enterprises in the general uncertainty. Everybody prepared to realise and turn credit into cash. Public securities fell and discount rose. Exchanges were closed, and quotations ceased. Hoarding swept away not only gold and silver, but even paper and small tokens, so that there was a dearth of currency for the ordinary purposes of life. The banks were allowed to save themselves from a run by a moratorium (p. 42). It was then (September 19, 1914) that the State issues of paper began on a great scale, and the restrictions on bank-notes were relaxed (pp. 43, 44). Metallic reserves were increased, but by no means in the old proportion to the issues.

At first, in keeping with principle, the banks, in face of a dull trade, were slow to increase their issues (p. 45). But then appeared the phenomenon so characteristic of the home industries of the belligerents in the Great War. The making of munitions caused an activity which seemed to restore prosperity to the country. "I subiti guadagni" (Dante, *Inferno*, xvi. 73), the sudden gains and the profiteering were witnessed in Italy as in England (p. 46). The banks, as in duty bound, catered for this new trade, and their note circulation rose by leaps and bounds.

R. Bachi's chronicle of Italian finance during the War [2] yields

[1] 1895. Reviewed ECONOMIC JOURNAL, *loc. cit.*

[2] *L'Italia Economica nel* 1914–15–16–17–18 (*Citta di Castello*, 1915–19), apud Supino, p. 54, and Bibliography, p. 131.

our author the following conclusions: The body economic, or industrial system of Italy, emerged from the War more complex, more powerful, better fitted than ever to cope with the difficulties of our time and the new international complications, stronger in spite of the fact that its new plants were constructed in haste to supply the urgent wants of Government, not with careful pains to meet the competition of large markets. But it emerged from the War worn out and impoverished financially, whether in the State or municipality, injured in its agriculture by the stopping of scientific cultivation and by the drain of cattle, its merchant fleet reduced, its railways the worse for wear, stocks of goods thinned, its State loans depending on foreign investors, and its factories on foreign coal. It can hardly be said that peace has brought plenty. The readjustment of labour to old conditions has moved slowly. Demobilisation brought home a multitude who were not keen workers as long as Government pay lasted, but who at once claimed and obtained a reduction in the hours of labour (p. 56). Military expenditure seemed to be kept up beyond necessity (p. 57), a grievance not unknown elsewhere. Prices (as with us) rose rapidly after the War, and there were strikes and tumults (pp. 56, 57). Civil servants successfully agitated for an increased bonus. The Bread Subsidy, said to cost a half milliard a month (p. 57) (£20,000,000 at the old par), has been a great feature in expenses. Taxes have risen, and the new tax on property may possibly become permanent.[1]

Reflecting this situation, the paper of the Government (pp. 58, 59) rose from 9000 millions of *lire* in January 1919 to 13,000 millions in December, while the bank-notes rose from 4300 millions to 5650 millions. In January 1920 the bank-notes had fallen by 600 millions, to rise again, the State paper had risen to fall again. To reduce the latter a loan was floated, but the 17,000 millions thus obtained were otherwise used (p. 58). The paper of both kinds by the end of June amounted to more than 20,000 millions, say (by the old par) £800,000,000 (p. 59).

Professor Supino favours an internal loan, as against Professor Loria's more drastic plan, for deflation [2] (pp. 119 *seq.*). He thinks the latter's tax could not be successfully or equitably levied from all. His own internal loan should be contracted, he says, at a time when the budget shows no deficit, but a balance. When fiscally there is no need of a loan, there is the less excuse

[1] See ECONOMIC JOURNAL, September 1820, pp. 287 *seq.* and 379 *seq.* The proposed Capital Levy was converted into a thirty years' tax on property.

[2] See ECONOMIC JOURNAL, March 1921, p. 93.

for diversion of it. He would withdraw paper money at the rate of 1500 or 2000 millions a year, by means of Treasury bills of long date, to be converted presently into consolidated debt at a lower rate of interest. He contemplates a reduction to 5000 or 6000 millions of paper in ten years (pp. 127–8).

But will Governments have the fortitude to use the money for this purpose, and no other? (p. 128). Our author had just given us an instance of their frailty (58). We can fancy how it would be in the British Parliament with groups eager to devote the fruits of the loan to their several favourite schemes. Our own experience of sinking funds is not encouraging.

Still perhaps in Italy and in England men of the present day, even when in office, will show themselves wiser than their forefathers.

J. BONAR

L'Associazione agraria subalpina e Camillo Cavour. By GIUSEPPE PRATO. (Turin. 1920. Pp. 352.)

THIS able monograph from the accomplished pen of Professor Prato forms a part (Vol. IX) of the *Biblioteca di storia italiana recente,* and belongs to the subsection of this great work which is concerned with the economic phenomena and opinions in the eventful years before 1848. The title does not do justice to the extent of the work, which is in reality concerned with the industry of northern Italy as a whole, a movement which centred round the Agricultural Association, and it is in connection with its activities that the author builds up his account of the general economic awakening with his wonted erudition and skill.

This period of his study is one of exceptional interest. It represents a delayed reconstruction after the upheaval of the Napoleonic wars, and also the economic preparation for Italian liberation. Also there is a special interest to readers in this country in observing the effect of English ideas. Professor Prato emphasises this aspect as representing the mental condition of the economic awakening—one which was individualistic, liberal both as to trade and politics, with the optimism of Smith and Bentham, and spiritual with the enthusiasm of Mazzini.

Cavour seems to have been the moving spirit, and the Agricultural Association was the expression of a part at least of his economic policy—one which, as Professor Prato says, had not hitherto found a worthy historian. This organisation was

established in 1842 in Piedmont, Genoa, Savoy and Sardinia in order to increase agriculture and industries. The State aided with its influence and a subsidy, the communes joined, and there was a large membership of private persons distributed amongst all classes of society. The organisation was a happy combination of local autonomy with a centralised administration. Improved agriculture was promoted by means of premiums, and, at the same time, research was undertaken upon the diseases of animals, plants and vines, while investigations were undertaken concerning the nature of manures. Attention was also paid to education, not only in the schools, but also in establishing special classes for adults. A beginning was made with the compilation of agricultural statistics. In a country such as Italy the problem of fuel was important, and a large programme in forestry was undertaken. Want of capital was a serious impediment, and one of the most interesting chapters is that upon agricultural credit, in which Professor Prato recounts the earlier schemes from that of Maurizio Solera in 1784 for an agricultural bank. The reactions of these schemes and the measure of accomplishment showed itself on transport and fiscal policy. The Association pressed for improved facilities, and, largely through its influence, a Commission was constituted which resulted in the construction of the railway lines from Genoa to Turin and from Alessandria to Lake Maggiori. The most interesting parts of the book consist of the chapters on social, political and intellectual results of the movement, and these are related to its influence on tariff policy. This side of the awakening shows how far it extended beyond the mere technique of agriculture. As agriculturists, the members would have tended towards Protection, but there were large political issues involved. The tariff of 1815 is described by the author as one of moderate Protection, though the rates seem high. By 1818 these duties had been doubled, and by 1830 the maximum was reached. There were proposals for a *Zollverein* with Austria which was denounced by patriots, and in 1847 a Customs-Union was accepted by Piedmont, Tuscany and the Papal States. In 1846, as compared with 1830, Customs duties had been reduced by amounts varying from 10 per cent. to as much as 89 per cent.—an interesting example of the Free Trade tendencies of the time.

For the historian the main import of the period lies in its preparation for Italian unity, but the actual economic consequences were considerable. In addition to the fostering of a spirit of " national industry," to adopt the phrase of a Scottish

agriculturist of an earlier generation, the countryside became more prosperous. There was both an increase in the number of small holders and an improvement in the condition of the small cultivators. The increase in the produce of the soil was appreciable. Comparing the average of the period 1750–5 with 1830–5, the production of wine had shown a small decline, that of cereals had increased during eighty years by no more than 44 per cent. By 1850–2, as compared with a century before, the loss in wine had been very nearly regained, and the increase in cereals was 109 per cent., that is, the increase in the later twenty years was more than one and a half times that of the previous eighty years.

W. R. SCOTT

Der Wirtschaftskampf der Voelker und seine internationale Regelung ("The Economic Struggle between Nations and its International Regulation"). By Dr. ADOLF LENZ. (Stuttgart: Enke. 1920. Pp. 315.)

THE author of this voluminous book, Professor of Law at the University of Graz in Austria, attributes economic imperialism to the employment of *forcible* methods for securing to any given nation a permanently increasing share in the world's economics. This economic imperialism is distinct from political imperialism.

All the Great Powers, and especially those nations who, as the "Allied and Associated Powers," are now domineering over the world by virtue of the peace treaties, have been developing *aggressive methods* of competition. The first effective method of such *pression économique* consisted in the increase of home production by a system of protection, which was intensified by "preclusive" duties, and then by the granting of export bounties, which have made dumping possible. These aggressive methods have led to an increase of industrial-capitalism, in the shape of united cartels and trusts; and the rule of foreign markets by industrial-capitalism goes hand in hand with the conquering power of financial-capitalism granting *loans*. Moreover, the Stock Exchange (*Effektenkapitalismus*) leads to a perpetual extension of joint-stock ventures, and finally to the necessity of investing the proceeds. Thus the financing-capital, concentrated in big banks, is anxious for expansion by no matter what means; while commercial-capital helps to impose the yoke of imperialistic methods on primitive peoples and States.

The antithesis between economic lords and slaves among nations has now reached a point where it threatens to destroy civilisation, and the only remedy, according to Lenz, would be to prohibit all forcible methods by the *lawful* regulation of the share of each nation in international economic relations.

A tendency towards autarchy, *i.e.* a system by which the needs of a nation are met by its own natural resources, dictated the economic policy of the Central Powers during the War, and was also the basis of the resolutions passed at the Economic Conference of the Allies at Paris in 1916. As legal liberty and equal facilities for communication between nations are unattainable at the present moment, in consequence mainly of the heavy war damages and the mania for "Reparation," the best we can do is to try to subordinate the economic policy of each single nation to the joint needs of all. Professor Lenz deprecates especially the unrestricted right of any nation to the exclusive exploitation of both its own raw materials or foodstuffs and its manufactured products; he advocates the "socialising" of the surplus—*i. e.* quantities above the level of national requirements. Every recognised political unit should be granted an economic minimum of subsistence. This policy is advocated particularly with regard to the distribution of food supplies and raw materials, in order to prevent physical and industrial starvation; and secondly, with regard to the granting of international loans at conditions which did not handicap the recovery of the supported nation. This socialising of the surplus produce of any given nation would lead to the extinction of nations which are not able to exist without continuous support, and which serve only political purposes.

By his criticism of the past, Professor Lenz endeavours to point the way to the all-round recovery of the Continent.

E. SCHWIEDLAND

The Nation's Financial Outlook. By A. B. THORNTON, F.S.I. (P. S. King & Son, 2*s.* 6*d.* Pp. 135. Small 8vo.)

THIS little book can be strongly recommended to anyone desirous of studying the present financial situation. Figures are given of all the most important items of the assets and liabilities of the country, both capital and annual, and the author is to be congratulated on the successful grouping of them. There is, however, no index, a rather serious omission in a book of reference even so short as this, and readers who intend to make

use of Mr. Thornton's labours will be well advised if they make an index for themselves. His object was to consolidate the available data of the national position and to do so in such a form as would enable the individual taxpayer to bring his own judgment to bear on the questions at issue and the prospects of the future. He has succeeded remarkably well, and has made his picture as readable as is possible for a picture of statistics, whilst it is difficult to discover from his draftsmanship what his political opinions may be. There are three valuable diagrams: (*a*) the National Debt as it stood at November 30th, 1920, divided into—Long term 2794 millions, Short term 1833, Floating 1334, External 1163, Funded 333, Saving Certificates 278; (*b*) an illustration of what the Budget of 1922–23 may contain on the side of expenditure assumed to be a total of 1000 millions; (*c*) an apportionment of possible taxation to meet this expenditure.

It is much to be wished that members of Parliament who bring forward schemes of expenditure and Ministers who do the like could be compelled to state what taxes they would increase to provide for meeting their plans.

Mr. Thornton's proposals are to raise half the revenue from income- and super-tax and a further hundred millions from death duties.

Books of this class should be studied by people who complain of the taxation they undergo and call it intolerable without trying to ascertain whether it is necessary. We are all too fond of saying that the other fellow ought to pay, whether it be the Frenchman declaring, regardless of consequences, that Germany must stump up, or the Labour orator that it must be the capitalist, or the Conservative that Labour must do its share. Life is complex, and books like the present, if only the grumblers could be made to read them, would make such grumblers see how heavy is the task before us all, and that there is no one remedy for our troubles.

ALFRED HOARE

Wages and Empire. By V. A. LYONS. (London: Longmans, Green & Co. 1920. P. 96. Price 4*s*. 6*d*. net.)

THE interest of this book lies in its theory of wages. This theory is based on the Principle of Population and the law of diminishing returns, and holds that industrial wages depend on wages in agriculture, and therefore on the supply of land. Employment on the land is the alternative to industrial employment;

and unless he can secure at least as high a wage in industry, the industrial worker will take up land. In new countries, therefore, where land is good and plentiful, industrial wages are high; in old, where pressure of population causes resort to the worse lands, they are low. The English worker has to compete with the low-paid worker of the Continent, who in turn has his wages kept down by the poor return to agriculture. If, therefore, under a complete imperial protective system, a self-supporting empire were established, British industry could exchange not with the poorer workers on the Continent of Europe, but with the highly-paid agriculturists of the Dominions; and British industrial wages would automatically rise to the level of the latter.

Such a theory is open to many serious objections, both in theory and practice; nor are the objections always decreased by the author's treatment of them. The case, it is true, is vigorously argued, and apt illustrations are not lacking. But the argument often fails to make sufficient allowance for the various other elements in the determination of wages in different countries—supply and demand, differences in cost of living, which before the War, at any rate, reduced the disparity in real wages between England and America, and increased it between England and the Continent, the influence of situation on the return to land, and the fact that, through international trade, English operatives are already exchanging largely with the agriculturists of new countries. All these seem to be elements of which a complete theory of wages must take account, but the author fails to do so. Again, the detailed treatment leaves something to be desired. Statistical tables are too often undated, and therefore difficult to check; and there are indications that checking is necessary. The criticisms of Malthus, again, will strike the reader as ill-informed.

At the same time, the author has rendered a useful service in drawing attention to the relations between industrial and agricultural wages. The points that he raises have not all been sufficiently worked out as yet, and the subject might with advantage be further explored. Again, there is in an earlier chapter a most interesting analysis of the physical value of different soils; and the summary of the products and production of the Dominions will probably be useful to students.

N. B. DEARLE

The Bases of Agricultural Practice and Economics in the United Provinces, India. By H. MARTIN LEAKE, M.A., Sc.D., F.L.S. (Cambridge: Heffers & Son, Ltd. Pp. 277.)

THE author belongs to the body of agricultural experts which since 1906 has formed a very useful branch of the administrative machinery of India. He is now Director of Agriculture in the United Provinces. The book is based on lectures delivered when he was Principal of the Agricultural College, Cawnpore.

The prosperity of the Indian peoples and the financial security of their Governments are so dependent on agriculture that it is a matter of great importance both for landowners and officials that a clear account of the agriculture of each province with suggestions as to the best lines of development should be available. It is to be hoped that the new expert Agricultural Department will in time supply what is wanted everywhere.

There is a large amount of material to be found in settlement reports, gazetteers, and monographs on particular crops, means of irrigation, etc. But much of this relates only to the district with which the writer was immediately concerned. As accounts of existing practice these notes often leave little to be desired. But they are the products of painstaking and accurate observation by persons who were neither practical farmers nor agricultural experts, and were not competent to criticise or to point out with any certainty the path of improvement.

The United Provinces is fortunate in having had since 1904 an admirable account of its agriculture written by Mr. W. H. Moreland, C.I.E., a Civil Servant who was Director of Agriculture from 1899 to 1912, and who possessed an amount of scientific knowledge of his subject not usually to be met with among Indian officials.

Mr. Leake's book in no way supersedes that of his predecessor. For information as to soils, climates, and agricultural zones, tillage, crops and their rotations, and the pests from which they suffer, cattle and their diseases, the management of holdings and estates, the landowner, the estate agent, and the Government official will all be well advised still to rely on Mr. Moreland's work. As a matter of fact, Mr. Leake has not attempted to give any systematic account of the agriculture of the province. The second and fourth parts of his book convey general agricultural instruction of a simple character to meet the needs of students attending an Agricultural College, illustrations being drawn from the province with which the hearers were familiar. The chapters

dealing with seed selection and with the application of the laws governing hybridisation discovered by Mendel to the production of improved races of crops form an interesting supplement to Mr. Moreland's sixth chapter.

The most valuable part of Mr. Leake's work is to be found in the sections devoted to the business side of agriculture. Part III conveys some elementary teaching on agricultural economics, and Part V applies the lessons learned to the special needs of the agriculturists of the United Provinces. Both Mr. Moreland and Mr. Leake have seen clearly that the main obstacle to improvement is not lack of will or even of understanding, but want of means. The land is tilled by small-holders owning, each, say from five to fifteen acres, or by the tenants of the larger landowners cultivating even smaller patches. The fields included in a holding are often scattered, and this evil tends to become worse by the operation of the laws of inheritance and partition, while reconsolidation is very difficult in practice. The severe competition for land leads to rackrenting, and many big landowners show little disposition to be anything but rent-collectors. The small farmers apply with patient skill the system of tillage developed by the practical experience of many generations. They know the value of good seed, but too often have to live between harvests on advances made by their *banias*, and to accept any seed the latter choose to give them. They know the worth of good cattle, but have frequently not the money to buy them, or enough land to spare to grow their food, or even to employ them with profit. Mr. Leake hopes that industrial development may have some effect in relieving pressure on the soil. But his main reliance for the future is on the development of co-operation as applied to credit, to the sale of the cultivator's crops, and to the purchase of the implements of his industry. It is a pity that Mr. Leake has not included in his book an account of the growth of co-operation in the United Province since the first Act on the subject, No. X of 1904, was passed. The progress made, though much less striking than in the Panjab, affords some ground for hope. Practically agricultural co-operative sale and purchase societies are non-existent, but there are some 3000 village banks with a membership of over 90,000, and in 1917–18 these banks lent seventeen and a half lakhs of rupees to their members. Seeing that the province has a population of forty-seven millions, two-thirds of which are agricultural, these co-operative societies have so far only a local importance and afford a very partial remedy for the economic evils from which the country

population suffers. For these there is no single remedy, and their removal must in any case be a long process. But the experience of other countries in which small-holders abound confirms Mr. Leake's view that in co-operation, if anywhere, the cultivators of the United Provinces must ultimately find salvation.

J. M. Douie

NOTES AND MEMORANDA

THE CONTROL OF INDUSTRY IN ITALY

THE question of the control[1] of industries is undoubtedly one of the most burning which complicate the present juncture of the life of Italy: and the story of the manner in which it has presented itself may prove a valuable source of instruction in the social economic sphere. Suffice it to say that Signor Giolitti's Government is pledged to the draft of a Bill for "the 'control' of industries by the workers therein concerned," which was submitted to the Chamber of Deputies in the session of February 8th, 1921; and it is not unlikely that this draft Bill will constitute one of the electoral platforms in the struggle which looms imminent for the re-election of the Italian Parliament. Moreover, the Confederazione Generale del Lavoro has submitted a draft scheme to Signor Giolitti in which larger powers are demanded for the workers' organisations; while the Confederazione Generale dell' Industria has presented another scheme tending to restrict such privileges. Finally, the Catholic organisations (Confederazione Bianca) have put forward proposals of an independent nature peculiar to themselves, although their scheme also is designed to bring about the participation of the workers in the management of the industries.

The interest of this movement, however, is not confined to Italy but is international, for it is the outcome of events remarkable in the history of the relations between capital and labour, namely, of the conflict which began last September in the ranks of the metal workers and then extended to many other branches, threatening to make havoc of the life of the nation. On June 18th, 1920, the Hon. Signor Buozzi, Secretary of the Federazione Italiana Operai Metallurgici (F.I.O.M.), presented a memorandum to the National Federation of the Engineering and Metal Trades containing proposals for the revision of the agreements in force in the various districts of Italy. More particularly it demanded a revision of wages such as would assure an average increase of

[1] It should be noted that, as implied later in the article, the Italian word "controllo" has a less absolute sense than the corresponding English word, and should often be taken to mean only the exercise of a limited supervision. —(Note by the Translator.)

90 centesimi for each working hour, that is to say, of L.7·20 per day; the fixing of wage minima to be determined on a varying scale according to the different groups of workmen; the fixing of a bonus for the high cost of living on a scale varying according to the categories of workmen, and subject to automatic variation dependent upon the variations in the cost of living. Special demands were made for piece-work, overtime, unemployment, etc. On June 26th the Federation of the Engineering and Metal Trades gave a first reply which was decidedly adverse to the demands of the workers, calling attention to the conditions in the industry—conditions which made it impossible to grant any further concessions; and on July 29th the same Federation invited the representatives of the workers' organisations to attend a meeting and hear a report on the present condition of the industry. There then began a debate, conducted by means of statements and counter-statements, which lasted until August 20th, when the workers' organisations, seeing that they were not going to gain their objective by discussion, decided to have recourse to "obstruction."

With the adoption of the policy of obstruction began also a period of mute hostility between foremen and workers, insubordination increased, and, finally, the feeling that was created became so strained that it could go on no longer. On August 30th the management of the works of Romeo & Co. at Milan, considering the position intolerable, decided on their own initiative to declare a lock-out, and this was the determining cause of the occupation of the factories in Milan by the workmen. Their example was followed throughout Lombardy, in the Province of Rome and in Campania. When, therefore, on September 2nd the employers met and decided by vote not to consider the demands of the workers' organisations until the prevailing abnormal and illegal state of affairs should cease, the metal workers answered by extending the sphere of the occupation of the factories to Liguria, to Piedmont and to other industrial centres of Italy.

The conduct of the movement was assumed by the Confederation of Labour and more directly by the Italian Federation of Metal Workers, and, locally, by the Workmen's Councils (Camere del Lavoro). The occupied premises were placed under the custody of "red guards," the red flag was hoisted at the entrance of the works, and within were organised "factory councils." It was believed that it would thus be possible to institute an actual real experiment in communism. As, however, the need for skilled labour was soon realised, an attempt was made to impress some engineers and

technical foremen, in some cases with success. The occupation lasted until September 27th, on which date the evacuation of the premises began. In the meanwhile the Government had intervened to promise the workers' organisations "control of the factories," but of that I will speak later. What we wish to make clear now is the fact that the communistic experiment of occupying the factories resulted in complete failure.

To what was this failure due? To lack of raw materials and of credit? To want of technical and administrative ability on the part of the new organisers?

(*a*) That many supplies of raw materials ceased as soon as the occupation of the factories was declared, and by reason thereof, cannot be doubted. An inquiry made on behalf of the Confederation of Industry received the following reply from the Owners' Association of the Metal, Engineering and Allied Industries, Piedmont: "With regard to the supply of raw materials from abroad the following has been ascertained: as soon as the factories were occupied, execution of all contracts made on a basis of payment on delivery of the goods was suspended, and payment in advance was declared necessary. . . ." The same results from investigations made by the Federazione degli Industriali at Monza and by the Unione Industriale, Verona.[1]

But it must be borne in mind that the effect of the cancellation of current contracts for the supply of raw materials could not have been sensible until after the lapse of a considerable time, and that therefore it cannot have had any appreciable effect on the work done during the period of actual occupation. Moreover, when the organisers observed a certain interdependence between the metal and engineering industry and the other national industries, they proceeded to the occupation of these latter as well: thus, on September 10th the Workmen's Council (Camere del Lavoro) at Milan ordered the chemical factories to be seized, followed soon after by the hosiery, textile and other factories with which the metal industry had no connection whatever. Finally, it must not be forgotten that of the factories occupied, there was not one which, at the moment of its seizure by the workmen, had not supplies for at least a month. Consequently, lack of raw materials cannot be considered as a partial cause of this failure.

(*b*) Are we then to find such partial cause in lack of credit?

[1] See Confederazione Generale dell' Industria Italiana, the occupation of the factories in September 1920, and its effect on our economic relations abroad. Rome, 1921, page 10, 6 and 7.

It was precisely on this point that the organisers displayed ideas of a primitive simplicity. They failed entirely to recognise that wages are a part of the value of the product, which is merely paid out in advance by the owner; being ignorant of the working of modern credit, they thought that the owners kept treasure in their safes, and that to pay wages these safes had merely to be opened, and it was only when they discovered that such a dream was very far from reality that they began to organise the sale of the products. In fact, on September 8th the Workmen's Council in Milan issued a memorandum for the sale of goods, and on September 13th declared that "with the assistance of the largest industrial and commercial establishments in Milan (The Administrative Syndicate of Consumers of the Commune of Milan) a central Bureau would be instituted for the purchase, sale and exchange of goods from all the factories of the different industries of which the workmen had taken possession. It is expected that the said Bureau will begin business on Monday 23rd curr." As a matter of fact no such Bureau ever came into existence, as private individuals would do no business with the workmen's organisation, being unwilling to lend any colour of legality to an illegal situation, and also not wishing to risk becoming involved in any subsequent embarrassment arising from disregard of the law. Thus the new "Factory Councils" found themselves not only quite unable to trade, but also without any possibility of being able to pay wages. There were a few Workmen's Councils, such as the one at Brescia, which went as far as to make an attempt to issue notes of 5, 10 and 50 lire, and to force merchants to accept them. In point of fact no merchant would accept them and the attempt proved vain. Therefore one of the most important factors of the failure of the experiment may be found in the absolute inability of the organisers to realise the interdependence of the various phenomena connected with production.

(c) To administrative incapacity was added an entire want of technical skill in those who wished to create a *novus ordo*. This technical incapacity may be deduced not only from the low production of the establishments during the occupation, but also from the fact that after the evacuation of the premises the manufacturers could not immediately restore normal conditions of work, but were forced to devote a certain period to setting their premises once more in order.

I have inquired of various prominent owners in the metal and engineering trades, whether, apart from incidental acts of wilful destruction, they have ascertained any damage caused in

their premises by the unskilful management of those who wished to take the place of their masters. An important sheet-metal and wire manufacturer, for instance, replies, giving the following list of damages:—(1) Execution of work not ordered by any customer, and hence production of unsaleable goods. Among the most important of these should be noted twelve tons of aluminium goods to the value of 48,000 lire. (2) Inferior workmanship on materials worked without due supervision, the most important item being ten tons of wire work, etc. It would be easy to multiply instances. But the lack of technical skill among those who occupied the factories is most clearly demonstrated by the actual terms of the resolution passed at the close of the memorable discussion which took place on the night of September 11th–12th, in the very bosom of the Confederazione Generale del Lavoro, and approved by 591,245 votes as against 409,565 obtained for another resolution inspired by the Executive of the Socialist Party. The resolution adopted demands in point of fact, among other things, a Trades Union control of industries, which, it is stated "will enable the working class to educate itself technically, and (with the aid of the skilled and educated ranks of the community, which cannot but share in a movement inspired by so high an ideal) to substitute its own authority for that of the masters, already nearing eclipse."

An explanation is desirable at this point: is, indeed, especially for English readers, indispensable. How, it will be asked, can the workers' organisations have demanded "control" of the industries, if by reason of their own incapacity the experiment of "control" which they have already made was an utter failure? The answer is, that what the Italian workers' organisations enjoyed from the 1st to the 27th of September, 1920, was "control" in the English sense of the word, that is, the rule and management of the premises. In this period the workmen came to realise that *something* besides mere manual labour was required to make business go, that there was a "spring" not in their hands, that there was some secret which eluded their grasp. It was then that they felt obliged to examine more intimately the life of the business, in order to understand this thing, whatever it might be—this secret which eluded them: hence the necessity of exercising a supervision in the intimate workings of the business.

The "control," then, demanded both then and now by the workers' organisations was and is precisely the exercise of checking and supervision; and was understood in this sense by Signor Giolitti when, in the decree of September 19th, he appointed a

Commission to make proposals for a project of workers' control of industries, and more exactly " for the organisation of industries on the basis of participation by the workers in the technical and financial control—that is, in the administration—of the business." The Bill itself which Signor Giolitti presented to the Lower House in the session of February 8th bears witness to this interpretation, so much so that in the preamble of the Bill we read : " In view of the failure of the two opposing parties to come to an agreement, the Government, recognising by various tokens of a political, social, and economic nature that the moment has come to grant to the working classes, so far as justice and reason allow, the right to an understanding of the working of the industries, and to an exercise of control over the same, proposes this Bill, etc." And Article I of this Bill states in section (*a*) that the object of the control is to enable the workers to understand how the industries live.

But in reality, the " control " is entrusted with other functions as well as this, viz. : (*b*) Promotion of improvements in the technical education of the workers, and of their greater moral and economic welfare, so far as the conditions of factory hours permit. (*c*) Ensuring the execution of all laws designed for the protection of the working classes. (*d*) Recommendation of improved methods of production calculated to increase or to cheapen such production. (*e*) Encouragement of more normal and friendly relations between those who offer and those who accept employment. It remains to be seen how those whose technical incapacity has been demonstrated by what happened at the time of the occupation of the factories, and made public by their own organisations, are to be in a position to suggest technical improvements. But apart from this detail it is clear that the fundamental defect of the Italian Government's project lies in this curious vicious circle. The function of supervision really presupposes in those called to exercise it a high degree of technical and administrative capacity; whereas the exercise of this function has been granted to the workers by the Italian Government for the express purpose of enabling them to obtain this technical and administrative capacity. It is clear, then, that if this function is to be exercised without injury to the vitality of the industries, it cannot be confined to the workers alone: it is clear that the supervision, if designed to promote social and economic equilibrium, must be entrusted to organs representative of the various interests concerned. All the economic organisations of Italy, Chambers of Commerce, Associations—in short,

all representative bodies are at this moment agreed in thinking that the powers granted to the workers' organisations under the proposed Act would considerably embarrass the life of the industries: but most are further of the opinion that a final solution will be obtained with the creation of bodies corresponding to the English Joint Industrial Councils, or, at any rate, bodies capable of keeping within constitutional limits the ever-changing tension of the relations between capital and labour, with economically useful results. This is all the more to be hoped, inasmuch as the results of last September's social experiment are as follows:

1. Confusion of the Italian Socialists, who have realised that the revolution is a more difficult matter than they had led the masses to suppose; so that the masses no longer have the same blind confidence in them as before. The revolt of various organisations from the Confederazione Generale del Lavoro, the schism between Communists and Socialists, the desertion *en bloc* of peasants' unions to the ranks of the Fascisti, that is, to an anti-Socialist body, the terror occasioned in the Socialist camp by the news of the dissolution of the Chamber and of the imminent political elections, all go to make this clear.
2. An increased consciousness among the workers of the fact that production is a far more complex matter than they had supposed, and that capital may not perhaps as yet be an antiquated instrument.
3. A better organisation of the middle classes, which following on the failure of the experiment of Socialist management of the factories, has regained a surer consciousness of its own existence and mission.

It is precisely these circumstances which enable the masters to discuss to-day with greater calm even the question of the "control," both with the Government, which really had made exaggerated promises, and with the workers' organisations, which have now learnt the necessity of not asking too much.

FILIPPO CARLI

Brescia,
April 1921.

RECENT OFFICIAL PAPERS

Report of the Committee of Inquiry into the Work of the Employment Exchanges. (Cmd. 1054.)

The Exchanges must be retained, with certain improvements. They are necessary for the working of Unemployment Insurance. Without them the Act of 1920 could not be fully carried out.

Minutes of Evidence of the Committee Appointed to Inquire and Report as to the Nature and Limits of the Assistance which can be given by Women in the carrying out of Police Duties, and as to what ought to be the Status, Pay and Conditions of Service of Women Employed on such Duties. **[Cmd. 1133.]**

Report of the Committee to Collect Information on Russia. [Cmd. 1240.]

There is evidence of decline in production, number of workers, and real wages. Extracts from Trotsky's *Terrorism and Communism* advocate the "militarisation of labour," "unconditional discipline," "the element of compulsion in all its forms." Trotsky's proposal to extend this *régime* to Trade Unions is opposed by Lenin.

Twentieth Financial and Economic Annual of Japan. 1920.

The revenue for 1920-1921, above £133½ million, is nearly double what it was for 1912–1913. Meanwhile the National Debt, about £280 million, has not much increased. The total value of exports and imports has almost trebled since 1912. The fall in the value of money is shown by the prices of forty commodities in 1919 compared with 1912. The median of these percentages is 227. Index numbers for the rise of wages similarly treated show an increase of about 40 per cent. only since 1912.

OBITUARY

Sir John Macdonell, K.C.B.

With the death of Sir John Macdonell on March 17, a bright light on law and letters has gone out. At the age of seventy-four he follows an elder brother, James, too early dead at thirty-seven. The prime ambition of James had been to be a journalist. Mentally he was a politician and historian. John succeeded him on the staff of *The Times*, and speedily made his mark. He never, I believe, definitely broke his connection with the paper. But his heart was in Law. Law for him was a Science; one thing; of no single period or country. He was called to the Bar in 1873, and in good time acquired a fair amount of practice, particularly commercial. Reasonably he might have aspired to the Bench. Influenced, somewhat, certainly by feebleness of health, mainly, by the opportunities offered of intellectual liberty, he accepted a Mastership in the Supreme Court. The historical dignity of King's Remembrancer came later. He was

of the orderly nature which assimilates readily divers functions without wronging, confounding, any one. Annually he mapped the mazes of Judicial Statistics. As Quain Professor he continued for years illuminating the vast field of Comparative Law. The well-informed writer of the Obituary in *The Times* notice mentions that works by him on the "History of Treaties" and "Private International Law" are left behind in a condition for publication.

Whatever he has composed will be precious; and the more as reminding us of our loss in the living man. A majority of mankind accept circumstances as they find them. They settle down in any places which offer room. An active minority set to work at changes for themselves, and among their neighbours. They may be selfish; usually are. In cases, much commoner than often is supposed, they have, mixed or unmixed, a philanthropic desire to improve their world, large or narrow. For that end they strive to lead. John Macdonell might, of right, have taken that part. He possessed all the capabilities, all the virtues, inclusive of a warm unselfishness. I never remarked in him the least of such inclination for dominion. His ardent desire was to learn, for the purpose of further advancing towards truth. Far from grudging rivalry, he stimulated gladly emulation in others. No difficulties disheartened himself. Apparent absence of them would have excited his suspicions. He was extraordinarily patient; being never in a hurry. Throughout his career, his habitual attitude was that of student, first and always; then, and concurrently, of teacher.

The variety of his intellectual acquisitions was as equally wonderful with their solidity. So was the vivacity of his interest in any subject to which he had ever devoted his attention. At an early period he had bestowed much thought on Political Economy. Modern experience requires modifications in the conclusions its early sages have laid down, and he was among the reformers. Later we became colleagues in the Political Economy Club, and often sat at its dinners side by side. Though a rare speaker, he never missed a point in the Debate: for our ways home coincided, and in our talk he often recurred to it. Not that his interests and imagination had no relief from their occupation in profundities. Never idle, busiest of officials, he retained space, if circumscribed, for general society. In it he even could find occasion for communion of thought. A sound classical scholar, after the Scottish standard, he had read all the Greek and Latin masterpieces. I have heard him dwelling with

enthusiasm on the concentration of wit in a four-line epigram. He had the range of modern literature, French, German, as well as English. With the heart, if not the pen, of a poet, he had a gentle sense of humour. No element of interest indeed was wanting in him to make the invaluable friend he was, the eminent public man, with no social deficiency; except—lament it who will—malice!

WILLIAM STEBBING

The Editors have received the following additional testimony to the value of Macdonell's economic work in a letter addressed to them by a correspondent:—

"Of course Macdonell's public reputation rests upon his work as a Jurist. But something should be said of his early work as an Economist. It is now forgotten and was generally overlooked, or suppressed, at the time.

"But I have special reasons for holding it in grateful remembrance. I took my degree in the Moral Sciences Tripos, in which Philosophy was of primary importance and Economics only subsidiary. I think I may say that I was more interested in any of the other subjects than in Political Economy. Mill's persuasive style had drugged his generation into a state of lethargic acquiescence. They accepted his view that after Ricardo and Malthus little remained to be added to the structure of economic science; and as historical and realistic economics was then taboo, there seemed to be no opening for further work, nothing to attract a young inquirer. What first roused me from this state of torpor was Sir John Macdonell's *Survey of Political Economy*. It was written with respectful caution, very necessary in those days of dominant and repressive orthodoxy: but it was extremely acute and suggestive, and it was impossible after reading Macdonell's criticism not to see that large parts of the then accepted doctrine were in their present form indefensible, and that the work of re-casting the science might well occupy the efforts of a generation. With a sound instinct, he had placed his finger on many of those weak points in the teaching of the classical school from which the modern developments of economics have started. Perhaps the criticism was all the more effective on a young disciple of Mill because it was expressed with the excellent temper and consideration so characteristic of Macdonell. At any rate I can answer for it that the influence of the book on one reader was such that, followed up as it was by a winter in York-

shire manufacturing districts, face to face with realities, his main intellectual interests were ever afterwards bound up with economics. How far others fell under Macdonell's economic influence and how far it was expressed in his contributions to *The Times* one cannot tell. But in any estimate of his work, the economic side should certainly not be overlooked."

H. S. F.

Karl Menger

Karl Menger, who is generally regarded as the founder of the Austrian School of Economics, died in Vienna on February 26th, 1921. Of the pillars of the Austrian School there are only now two left—Von Wieser and Schumpeter. The third of the band, Böhm-Bawerk, died in 1914, and the other was Karl Menger.

Karl Menger was born on February 23rd, 1840, at Neu Sandez, in Galicia, and after studying law and economics at Prague and Vienna, graduated in 1867 at the University of Cracow. Six years later he became Professor of Economics at the University of Vienna. In 1876 he was appointed private tutor in political economy and statistics to Prince Rudolf of Austria, whom he accompanied on his travels to Switzerland, England, and France, in 1877 and 1878. On his return he took up academic work again, retiring from the University in 1903 to devote himself to writing. In 1900 he was appointed a life member of the Austrian Upper House.

Menger was a very early adherent of the conception of marginal utility, which for him and his school was fundamental. In this he was in marked opposition to the German Historical school. The latter in the main tended to lay stress on facts; Menger was attracted by theory and speculation. His analytical work was brilliant. He had an intimate acquaintance with the doctrines of the French and English classical writers, and he owed much to the inspiration of Walras and Jevons. The Austrian school, however, appears to have lost a good deal of its influence during the last fifteen years, and its best modern exponent, Eugen von Philippovich, Menger's own successor at the University of Vienna, inclined strongly to the German school, and particularly to the train of thought favoured by the Verein für Sozialpolitik. In fact, no less an authority than Charles Gide, who thought well of the Austrian school, recently declared that it is now more

American than Austrian, seeing that its old traditions are carried on by men like Irving Fisher, Clark, and others.

Menger was a warm advocate of the Quantity Theory of money; down to his death he was a stern opponent of the new theories, such as those propounded by Knapp, Liefmann, Bendixen, and others.

His principal works are *Grundsätze der Volkswirtschaftslehre* (1871), *Die Irrtümer des Historismus* (1884), *Zur Theorie des Kapitals* (1888), *Grundsätze einer Klassifikation der Wirtschaftswissenschaften* (1889), *Beiträge zur Währungsfrage in Oesterreich-Ungarn* (1892), and *Der Übergang zur Goldwährung* (1882).

Nor must his own private library be left unmentioned. It has the reputation of being the best collection in the world of economic publications.

M. EPSTEIN

CURRENT TOPICS

THE Annual Meeting of the Society was held at 9, Adelphi Terrace, on March 2nd, 1921. The Officers and Council of the Society were elected for the current year as shown on the back of the cover. The Secretary presented a report showing that the balance of income over expenditure was £741 for the year 1920 as compared with £437 in 1919, £425 in 1918, £315 in 1917, £365 in 1916, and £327 in 1915. Accessions of new members, etc., as compared with previous years were as follows :—

	1920	1919	1918	1917	1916	1915	1914
New Fellows and Library Members elected...	228	105	60	52	64	100	50
Fellows lost by death, resignation, or default	40	14	41	43	25	43	33
Number of Fellows and Library Members on December 31st ...	1097	909	818	799	790	751	694
Life Members included in above total	307	232	211	191	179	173	159

A NEW Honour School of Philosophy, Politics and Economics has been instituted at Oxford. The subject of the School is the study of the structure and of the philosophical, political and economic principles of modern society. The examination has been arranged so that Candidates may give special attention either to Philosophy or to Politics or to Political Economy by the choice they make of prescribed books and of a further subject. The highest Honours will be attainable by excellence in any one

of these three sections, provided that adequate knowledge is shown in the other subjects of examination. The principal Regulations concerning Political Economy will be summarised in a later issue of THE ECONOMIC JOURNAL.

BY a recent University Statute the emoluments of the Drummond Professor of Political Economy in the University of Oxford are raised to £900 a year. The duties of the Professor are at the same time increased so as to be equal to those of Professors belonging to the most highly paid class (Schedule A). The tenure of the office which has hitherto been quinquennial will henceforth be for life. The present Professor, whose term of office expires June 30th, 1921, does not offer himself as a candidate for the reconstituted chair.

THE London School of Economics and Political Science will award in July, 1921, two Research Studentships, available for two years, one for £175, and one for £75. Further particulars can be obtained from the Director of the School, Clare Market, London, W. C. 2.

THE Master and Fellows of Corpus Christi College, Cambridge, propose to elect in July, 1921, to the Almeric Paget Studentship, founded by Lord Queenborough for the post-graduate study of Political Science, Economics and kindred subjects. The Studentship is tenable for one year and is of the value of £150. Candidates must be graduates of some University or must be about to graduate, and the successful candidate will be required to come into residence at Corpus Christi College for the academic year succeeding his election. Candidates must forward evidence of their graduation, or that they will have graduated before October 1st, 1921, three testimonials as to their suitability, and a signed statement of their age and the course of study or research which they propose. They will also be required to sit for an examination, beginning on July 12th, consisting of an essay and two papers containing a wide choice of questions on Political History, Political Science and Economics. Candidates should send their names, before July 1st, to Will Spens, Esq., Tutor of Corpus Christi College, Cambridge, from whom further particulars can be obtained.

THE Francis D. Pollak Foundation for Economic Research offers a prize of one thousand dollars open to all comers for the best essay, not exceeding ten thousand words, submitted during 1921, on one of the following subjects: (1) "The part that money plays in economic theory"; (2) "Causes of unemployment and remedies"; (3) "Conditions which determine how much the consumer gets for his dollar." The judges will be Irving Fisher, Professor of Economics, Yale University; Wesley C. Mitchell, Director of the U.S. National Bureau of Economic Research; and Wallace B. Donham, Dean of the Harvard University Graduate School of Business Administration. "All essays which are mailed anywhere on or before December 31st, 1921, will be eligible for prizes." Further particulars, including "a list of suggestive questions," may be obtained from Dr. William T. Foster, Director of the Pollak Foundation, Newton 58, Massachusetts.

IT is interesting to notice that, with the amalgamation of the old country bank of Messrs. Fox, Fowler with Lloyds Bank, Ltd., the last of the English country bank-note issues lapses.

RECENT PERIODICALS AND NEW BOOKS

Quarterly Review.

APRIL, 1921. *The White Man and his Rivals.* THE DEAN OF ST. PAUL'S. The prospect of the coloured races possibly prevailing in the struggle for existence affords a new proof of the "ruinously unsound economics of the Labour Movement." *Co-operative Labour in Italy.* L. SMITH-GORDON. Two types are described: the Labour Society with members generally of the same trade, and the Farming Society with two species: collective or socialist, and Catholic or individual. The *Istituto Nazionale di Credito per le Co-operative*, designed to provide working capital for the societies, is the model of the Irish National Land Bank.

Edinburgh Review.

APRIL, 1891. *Labour in India.* Col. H. A. YOUNG. *Capitalism.* III. A. SHADWELL. Increasing welfare has aggravated the sense of inequality. Alleviation may be found in the conception of wage-earners as partners in a co-operative concern. *The New Protectionism.* The defence of "key industries" against "dumping" is merely an excuse for protection, the evils of which are exemplified by reference to the *glass*, *dye*, and other industries. Germany is no longer dangerous.

The Fortnightly Review.

MARCH, 1921. *Rates and Taxes.* J. E. ALLEN. *Agricultural Co-operation.* LESLIE SCOTT. "Factory farming," dispensing with the valuable class of small independent farmers, can only be averted by Co-operation.

The Round Table.

MARCH, 1921. Among other economic matters there is a notice of the industrial situation in Australia; of the New Industrial Peace Act, which does not seem to have brought peace, and of the Royal Commission which reported that the basic wage for a family of five should be £5 16*s*. This led to a suggestion—analogous to the New South Wales project described in the ECONOMIC JOURNAL (Vol. XXX, p. 550)—that the minimum wage should not cover the needs of children, but that the employer should pay into a pool so much for distribution to parents of dependent children. There is a record also of labour disturbances in New Zealand; the coal strikes occasioned the stoppage of the Auckland trams for a fortnight.

Economica.

JANUARY, 1921. No. 1. *Foreword.* This Journal will be issued three times a year. It will deal with new books, not by way of review, but by articles on selected recent works. *Economics as a Liberal Education*, SIR W. H. BEVERIDGE. *The Group System in France*, HERMAN FINER. The small heterogeneous groups of French politics are contrasted with our two-party system. *The Meaning of Bank Deposits.* EDWIN CANNAN. Bank deposits are just like deposits of bags in a cloak-room, except that the latter cannot be used while deposited. There "is nothing in this one difference between money and other goods to suggest that the person with whom money is deposited can lend out more than he possesses in his own right, *plus* what is deposited with him." Let us then return to the good old doctrine of Mrs. Fawcett's *Political Economy for Beginners* and Jevons' *Primer*, that banks receive money from one set of people and lend it to another; they do not "manufacture" (in Mr. Hartley Withers' phrase) millions by lending something which did not before exist. *The Economics of Employment in England*, 1660-1718. T. E. GREGORY. An instructive inquiry into the thoughts and practices of a past age. *Asiatic Immigration into Australia.* PERSIA CAMPBELL. . . . . *Recent Contributions to Political Science.* H. S. LASKI. In this substitute for reviews it is argued, with reference to recent publications, that the "Sovereign State" of the classical political philosophy has now reached its apogee.

Journal of the Institute of Bankers.

DECEMBER, 1920. The annual address of the President, WALTER LEAF, dealt with the definition of a Bank.

JANUARY, 1921. *Stabilisation of Imperial Exchanges.* J. F. DARLING. Among measures suggested were an imperial currency, a 25*s*. sovereign and 5*s*. Canadian dollar, an Empire Bank Commodity, Bills of Exchange as a basis for Currency.

Journal of the Institute of Bankers in Ireland.

OCTOBER, 1920, JANUARY and APRIL, 1921. The series of instructive lectures given at the Institute by ALDERMAN B. SHIELDS, Professor of Commerce, University College, Dublin, is continued in these three numbers, in which the subjects handled are respectively: *The Economic Effects of the Establishment by Legal Enactment of the Principle of a Maximum Normal Week of Forty-eight Hours, Methods of Industrial Remuneration, Profit-sharing and Labour Co-partnership.*

Better Business (*Dublin*).

FEBRUARY, 1921. William Thompson of Cork, who was before his time as Socialist, Co-operator, and advocate of woman's rights, is the subject of an interesting article.

International Labour Review (Genova).

Vol. I. No. 1, JANUARY, 1921. This new review fulfils the provision in the Treaty of Peace that the International Labour Office will

publish "a periodical paper dealing with problems of industry and employment of international interest." In the first article ALBERT THOMAS, the Director of the Office, describes its origin and possible future. SIDNEY WEBB writes on the *Process of of Amalgamation in British Trade Unionism;* J. R. COMMONS on *Industrial Government.* Under the head of production prices and cost of living and other captions much valuable information is lucidly presented.

No. 2. *Industrial Hygiene.* SIR THOS. OLIVER. *The Economic Labour Council in France.* LÉON JONHAUTT. *Daily Tonnage Output of the Pick Miner.* ETHELBERT STEWART (United States Commissioner of Labor Statistics). *The German Works Councils Act.* E. BERNSTEIN.

Quarterly Journal of Economics (Cambridge, Mass.).

FEBRUARY, 1921. *The Economic and Financial Position of France in* 1920. GASTON JÈZE. Escape from a critical position can only be obtained by reduction of expenditure, and of foreign debt, German reparation and stabilisation of the exchanges. *Generating Cycles of Products and Prices.* H. L. MOORE. An attempt to trace certain statistical features of economic cycles. *Index Numbers of the Total Cost of Living.* GEORGE E. BARNETT. A study in Index numbers. *A Statistical Analysis of the Relation between Cost and Price.* KEMPER SIMPSON. Price is found to approximate to marginal cost when the total gross profits of all the producers in an industry amount to about 10 per cent. of the capital invested in the industry; and to be higher or lower than marginal cost according as the return is higher or lower than 10 per cent. *The Railroads under Government Operation.* I. *To the close of* 1918. W. J. CUNNINGHAM. The writer is officially connected with Railroad Administration.

The American Economic Review.

MARCH, 1921. *The Post-War Outlook.* H. J. DAVENPORT. *Discount Policy of Federal Reserve Banks.* O. M. W. SPRAGUE. *The Theory of Production.* LEO WOLMAN. *An Index Number of Production.* W. W. STEWART. *The Webbs' Constitution for the Socialist.* J. R. COMMONS.

Journal of Political Economy (Chicago).

MARCH, 1921. *The Origin of Utility Commissions in Massachusetts.* LEONARD D. WHITE. *The Stabilising of the Dollar.* C. REINOLD NOYES. *The Quantity Theory and Recent Statistical Studies.* G. R. DAVIES. *Inter-bank Borrowing on the National System.* II. O. C. LOCKHART.

APRIL, 1921. *Federal Taxation of Income from the Production of Minerals.* ARTHUR C. KELLEY. *Joint Cost in the Packing Industry.* GEORGE E. PUTNAM. *Cost of Production and Price over Long and Short Periods.* F. H. KNIGHT.

American Academy for Social Science (Philadelphia).

MARCH, 1921. This number deals with the situation of international trade.

The Review of Economic Statistics (Cambridge, Mass.).

FEBRUARY, 1921. *Production Prices and Aggregate Values of Crops.* Oscillations from year to year rather than the cyclical movements of general business conditions characterise the production and prices of agricultural commodities. There is a high negative correlation, $-\cdot79$, between physical production and prices.

APRIL, 1921. *The Italian Economic Situation.* The physical capacity for production has not suffered much from the War; but the lack of coal, the burden of public debt—nearly 100,000,000,000 lire—and the revolt of labour are serious.

Journal des Économistes (Paris).

FEBRUARY, 1921. *La Conférence de Paris.* YVES GUYOT. *La réalisation de notre créance sur l'Allemagne et le change.* E. LANEUVILLE. *Les métaux précieux en* 1920. A. RAFFALOVICH. *L'industrie de la Soie : les États-Unis et le Japon.* L. B. GOTTLIEB.

MARCH. *L'industrie et le Commerce britanniques en* 1920. YVES GUYOT. *Contre le défaillisme monétaire.* A. RAFFALOVICH.

APRIL. *Le pouvoir d'acheter.* YVES GUYOT. *Les gouvernments et la Situation économique.* M. PANTALEONI. Extracts from the Italian economists' contribution to the Versailles Conference of 1920. *Pour la déflation contre le défaillisme monétaire.* A. RAFFALOVICH.

MAY. *La pire des emprunts.* YVES GUYOT. That forced paper money is the worst species of taxation is maintained against Professor Gide and others. *L'économié orthopédique.* ROUSEL. Directed against the modern spirit of State interference. *La grève des mineurs.* N. MONDET.

Revue d'Économie Politique (Paris).

JANUARY–FEBRUARY, 1921. *Un programme Socialiste liberal.* E. RIGNANO. The limitation of inheritance is advocated (Cp. ECONOMIC JOURNAL, Vol. XIX. p. 305). *Le régime monétaire du grand-duché de Luxembourg.* E. SIMONIS. *La banque nationale Suisse pendant la guerre.* P. ROSSY. *Revenus et dépenses de menages de Travailleurs.* M. HALBWACHS. A study on pre-war workmen's budgets.

MARCH–APRIL. *La Situation Monétaire en Tchécoslovaquie.* Une expérience de théorie quantitative. STÉPHAN BAUER. *L'industrie hydro-électrique en France.* M. PORTE. *L'indice du cout de la vie du bureau de Statistique de la ville d'Amsterdam.* R. CLAEYS. A criticism of methods employed in different countries for indicating change in the cost of living introduces a description of the Amsterdam plan. *Les banques d'émission et l'après-guerre.* CHARLES RIST.

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THE ECONOMIC JOURNAL

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THE PLACE OF RYE IN THE HISTORY OF ENGLISH FOOD

No one can work at the economic history of the English Middle Ages without a growing sense of respect for the many years of plodding toil which Thorold Rogers put into his *History of Agriculture and Prices.* From bailiffs' rolls and other sources, entirely manuscript and original, he collected for the years between 1259 and 1583 nearly 30,000 entries of cereal prices alone. And he was not only wonderfully patient and persistent; he was a pioneer. He was a pioneer in the special field of mediæval price history, with no predecessor but Bishop Fleetwood in his *Chronicon Preciosum* (1707). How defective was Fleetwood's material and how correct was Adam Smith's judgment that the prices he collected " seem to have been those chiefly which were remarkable for extraordinary dearness or cheapness," [1] will be apparent to anyone who from the vantage ground of Rogers' volumes looks back on the table Smith took the trouble to put together from the bishop's material.[2] And Rogers was a pioneer in the wider field of mediæval economic history in general. We have constantly to remember in using his books that between his generation—1866 was the date of his two first volumes—and the Middle Ages there had dropped the heavy veil of Early Victorian forgetfulness and self-satisfaction. The tradition of things mediæval survived in England right down to the time when the Enclosure movement had finished its work; and then, in a curiously brief space of time, hardly more than one generation, even the large outlines of the age-long rural economy of England passed completely out of memory. Rogers had not the good fortune to find out the yardland which Seebohm rediscovered almost as if it had been a Babylonian antiquity; but he did lead the way in making us realise anew the vast

[1] *Wealth of Nations*, ed. Rogers, I, p. 196 (Bk. I, Chap. XI).
[2] At the end of Bk. I, Chap. XI.

importance of agrarian conditions in the past life of our people. It is necessary to say this, lest it should appear that criticism, even of one of Roger's main contentions, is meant to detract from the gratitude which is his due.

"Wheat was the customary food of the people of this country," Rogers declared in 1866, "from the earliest times. . . . Rye was very scantily cultivated."[1] Writing eighteen years later, he was equally emphatic, and this time in a work intended for a wider audience:

> "Over the greater part of England, over all indeed which has come under my inquiry, even as far north as the county of Durham, the staple produce of agriculture, and by implication the staple food of the people, was wheat, though oats are also consumed as the food of man in those northern regions. From the earliest times wheat has been the principal grain on which the English have lived."[2]

One of the pages is headed, "Wheat the food of the English." This later work, the *Six Centuries of Work and Wages*, partly because of the cheap editions in which it has been issued, partly because of the popular sympathies and breezy vigour of style which characterise it, has had a wide circulation in England; and, in conjunction with Karl Marx, it serves as the authority for much of what is now being taught as history to working-class audiences.

The real truth of the matter cannot yet be stated with any great exactness either as to time and place, and the subject calls for much more investigation than it has so far received. But the following propositions may be tentatively put forward. Wheat only obtained its present position as the exclusive bread corn of the English people during the eighteenth century. During the Middle Ages and long after, rye was the ordinary food of the labouring population over the greater part of the country; while barley and oats were also largely consumed. Wheat was at first a luxury food, for the landlord class. From them it was adopted by the merchants of the towns and by the more sedentary and more skilled craftsmen, forming, of course, during the Middle Ages, only a small proportion of the inhabitants of England. For the mass of the people, both in the towns and in the country, there was hardly ever and hardly anywhere a complete change-over from rye to wheat; the transition was effected by the use, during centuries, of a mixture—*maslin* (*mixtilio*, *miscelin* and a

[1] *History of Agriculture and Prices*, I, pp. 26, 27.
[2] *Six Centuries of Work and Wages* (1884), p. 59.

score of other variants)—of rye and wheat, often sown together; a mixture in which, in the course of ages, the wheat proportion tended more and more to preponderate.[1]

Before we look at some of the more readily accessible evidence, we may observe that such a view as I have just stated puts England into intelligible relations to the agrarian development of the rest of north-western Europe. How very slowly even now rye is yielding to wheat in Germany is matter of common knowledge; early last century four times as much rye as wheat was used for bread in the towns of Prussia.[2] Even in France, now the country *par excellence* of fine wheaten bread, the transition was, apparently, only effected last century. As M. d'Avenel remarks:

> "If it were only for the fact that it has changed black bread for white and enabled the workers to get it regularly, the nineteenth century would occupy a creditable place in history." . . . In the past "the workman contented himself with bread made of méteil" (*i. e.* maslin). "rye, barley, buckwheat, millet, and in bad years oats. . . . The phrases and proverbs (about good bread and white bread and black bread) which survive in the language reveal anxieties among our forefathers which are now unknown."[3]

That England preceded France in completely substituting wheat for rye in the food of her people cannot be attributed to any advantages of climate or soil. Indeed, according to a high authority, who knew both countries, M. Léonce de Lavergne, "the extreme humidity (of England) is little favourable to wheat."[4] The suggestion naturally occurs to one that the difference between England and other countries with respect to its cereal crops may be, to some extent, connected with the difference in its modern agrarian system, and its unique possession

[1] It will be noticed later that the eighteenth-century writer, Harte, gives the name *maslin* also to a mixture of wheat and *barley*. Whether this was then a common use of the term I do not know. But *maslin* elsewhere, so far as my present evidence goes, always means a mixture of wheat and *rye*. Agricultural writers notice the fact that these two grains were often sown and reaped together, and criticise the reason generally given—that "if either failed, there would still be a crop of the other," pointing out also the awkwardness of the rye ripening a fortnight before the wheat: Rham, *Dictionary of the Farm*, s.v. *Rye*; Mortimer, *Systema Agriculturae* (2nd ed. 1675), p. 37.

[2] Figures from 1831 in Apelt, *Konsumption der wichtigsten Kulturländer* (1899), p. 22.

[3] *Découvertes d'Histoire Sociale* (1910), pp. 170–173. That by 1789 there was a contrast in this respect between England and France appears clearly from Arthur Young, *Travels in France*, Part II, Chap. XV.

[4] *Rural Economy of England*, etc., p. 6.

of the capitalist farmer. We shall return to this proposition after a hasty glance at the evidence. I propose to begin with 1800, and work backward.

It is clear that when the war began with revolutionary France, wheat had already come to be the usual breadstuff of the whole population, though it was still not quite universal. All that Arthur Young said, in comparing England with France, was that "in England bread is very generally made of wheat, and the poor, in many parts of the kingdom, eat the whitest and best": while the Rev. David Davies, a Berkshire Rector, pleading the cause of the agricultural labourer in 1795, remarked that "where land had not been so highly improved as to produce much wheat, barley, oatmeal or maslin bread were still in common use."[1] That where they had become used to wheaten bread the poor obstinately turned a deaf ear to Pitt's appeal to shake off their "groundless prejudices" and try bread of mixed flour, is easily to be understood if we suppose that the less attractive dark bread was still a living tradition. Mr. Hammond is no doubt justified in arguing that the proposals for diet reform which came from "the rich" showed little understanding of the labourer's real position just then, and especially of the small quantity of milk he could commonly get in the south. But it is worth while observing that a belief in the virtues of the cheaper bread corns was not quite confined to "the rich." As late as 1821, William Cobbett, in the high-water period of his vigorous Radicalism, did not imagine that his championship of the oppressed and his intimate knowledge of rural life ought to prevent his writing thus:

> "Rye, and even barley, especially when mixed with wheat, make very good bread. Few people upon the face of the earth live better than the Long Islanders. Yet nine families out of ten seldom eat wheaten bread. Rye is the flour that they principally make use of. . . . Half rye and half wheat, taking out a little more of the offal, make very good bread. Half wheat, a quarter rye and a quarter barley; nay, one third of each, make bread that I could be very well content to live upon all my lifetime."[2]

Whatever the merits of *maslin* might be, by 1795 the nation had abandoned it. Thirty years earlier, the great mass of the people had already an evident repugnance for any but pure wheaten bread: "rye and barley bread at present," we are told by "that admirable writer Mr. Harte," as Arthur Young calls him,

[1] According to the account given by Hammond, *The Village Labourer*, p. 126.

[2] *Cottage Economy* (ed. 1828), § 82.

"are looked upon with a sort of horror even by poor cottagers." [1] Harte goes on to say that "the yeomen of this kingdom about 130 years ago mixed both vegetables (rye and barley) with wheat to make bread, but the very name of the mixture is now forgotten." [2] Whence he derived his impression as to the custom of 130 years previous—a curiously exact statement—is not indicated in this passage; but we may bear it in mind when we get back to the years around 1634. And returning to 1764, it would appear that there was still at that time a large minority who did not get wheaten bread; if we can place any reliance on the estimate of Charles Smith, the author of the much-quoted "Corn Tracts," that of a population of six millions in England and Wales, three and three-quarter millions consumed wheaten bread, while the rest lived on bread of other grain.[3] And the same author, writing in 1765, is careful only to say that "bread made of wheat is become *more generally* the food of the labouring people." [4]

When we go a little further back, to Malachy Postlethwayt, who issued the first edition of his big *Dictionary of Trade and Commerce* in 1751, rye is quite prominent by the side of wheat; and an explanation is offered, the value of which I am unable to judge, as to the place of barley as a bread corn.

> "Wheat, which is the strongest nourishment, seldom succeeds but in soils that are hot or vigorous or at least marshy. Rye prospers in a moderate soil, and sometimes is contented with the lightest. . . .
>
> "Arable lands are generally ranged into three divisions, nearly equal. One is sown before the winter season, with wheat and rye, or else with meslin which is a mixture of both. The second must be allowed a winter's fallow, and may be sown in the spring with the smaller grain, as oats and barley, etc. The third division is suffered to lie fallow. . . .
>
> "The species that are sown before the winter season are the autumnal wheat, barley, and *rye, which last is the food of the poor people,* and thrives in the worst soils and driest years. Starch corn, or autumnal barley, is sown before the winter season. 'Tis cut in June and is serviceable to the poor people, till harvest supplies them with their winter provision."

How much of this is translated from the French work of Savary I do not know; but were it all from his French original,

[1] As cited by Young, *Farmer's Letters* (3rd ed., 1771), I, p. 207. Harte was a Canon of Windsor and a friend of Pope. His *Essays on Husbandry* appeared in 1764.

[2] In a footnote: "It was called *maslin-bread*, quasi *miscellane*."

[3] As cited by Brodrick, *English Land and English Landlords*, p. 54.

[4] As cited by Tooke, *History of Prices*, I, p. 60.

Postlethwayt must have thought there was nothing in it grossly inapplicable to England.[1]

We may so far anticipate the subsequent argument as to accept Tooke's suggestion that the "resort to a higher diet," as he calls it, took place to a large extent during the period of great abundance and low prices which included the years between 1715 and 1765. Some indication of the declining position of the rye crop may perhaps be found in the figures of export. The famous Bounty Act of 1689 was concerned with each of the three staple grains; in the text of the statute they appear in the order of the maximum home price below which the bounty was given, beginning with the cheapest; an order which is the same as the amounts of the bounty. For malt or barley, when at 24*s.* a quarter or under, the bounty was 2*s.* 6*d.*; for rye, when at 32*s.* a quarter or under, the bounty was 3*s.* 6*d.*; for wheat, when at 48*s.* a quarter or under, the bounty was 5*s.*[2] Where the statistics of barley export may be found I do not know; those for rye and wheat are given in the "Corn Tracts," as quoted by Arthur Young. They show that while the actual quantity of rye exported greatly increased between 1697 and 1765, the proportion which it bore to exported wheat greatly diminished. Taking wheat and rye together, rye forms for the periods 1765–1746, and 1746–1726 some 12 and 10 per cent. respectively of the whole, but for the period 1726–1706 nearly 24 per cent., and for the period 1706–1697 30 per cent.[3] Doubtless the relatively decreasing export of rye was related to changes in demand as well as to changes in supply; still, for what they may be worth, the statistics are in keeping with the present contention.

When we get back to the closing years of the seventeenth century, we get a fresh foothold of approximate fact in the estimates of Gregory King,[4] written in 1696. King estimated the net produce of the arable land of England and Wales "in a year of moderate plenty," as follows:

Wheat	14,000,000 bushels
Rye	10,000,000 ,,
Barley	27,000,000 ,,
Oats	16,000,000 ,,

[1] Ed. 2, 1757, p. 565, *s. v.* Corn.

[2] *Statutes of the Realm*, VI, p. 62 (1 W. and M., c. 12).

[3] The periods are as given in Arthur Young, *Farmer's Letters*, I, p. 51 *seq.*

[4] Here cited as reproduced in Davenant's "Essay upon . . . the Balance of Trade," in *Works* (ed. Whitworth, 1771), II, pp. 198, 217.

The comment upon this of a more recent writer of some deserved reputation in this field is that "as the consumption of grain per head of the population may be roughly taken at nearly one quarter a year, it follows that less than one-half of the people then lived on wheaten bread."[1] If, however, we accept King's estimate of produce we must accept his estimate of the then population, which is five and a half millions; and fourteen million bushels at eight bushels a head would suffice only for a million and three-quarter persons, *i. e.* less than one-third of the estimated population. The allowance of eight bushels per head is undoubtedly too large, though it has been freely made by many writers. It is better to take the alternative allowance of six bushels, with which Porter operated as an alternative to eight in his well-known calculations.[2] And with this smaller allowance the wheat crop would suffice for between 42 and 43 per cent. of the population. But, after what has already been said, it will be borne in mind that it would be mistaken to think of forty-two out of a hundred as living on pure wheat bread and the other fifty-eight on entirely non-wheaten. We must think rather of considerably fewer than forty-two getting pure wheat, considerably fewer than fifty-eight getting nothing but rye, eked out with barley, and a large indeterminate middle class getting a mixture of wheat and rye in variable proportions. Of course all such estimates as those of King are open to much criticism. Even with the administrative machinery at the disposal of modern governments, crop estimates are not free from a pretty wide margin of doubt; as all are aware who have had to deal with German crop estimates before and during the War. King's estimate of population is also open to some doubt; it may have been somewhat too high.[3] And yet we may take heart from the remark of Davenant:

> "Mr. King's schemes . . . are all of them so accurately done that we may venture to say they are not to be controverted in any point so material as to destroy the foundations of those reasonings which the writer of these papers or any other person shall form upon them."[4]

There must be abundant evidence for the whole of the seven-

[1] Brodrick, *English Land and English Landlords* (1881), p. 47.

[2] *Progress of the Nation* (ed. 1847), p. 139.

[3] Cf. Porter, p. 13.

[4] While revising the proof I may add that John Mortimer, F.R.S., in his *Whole Art of Husbandry* (1707; 3rd ed. 1712), in Book V, "Of several sorts of grain," gives Chapter I to Rye. Mortimer was a London merchant who bought and improved an Essex estate.

teenth century. In the notes, however, which I have hastily put together there is a gap between 1696 and 1631–21. During the last-mentioned decade a few significant bits of information reach us.

The harvest in 1620 had been particularly good, and Tooke quoted the following comment :[1]

> "Sir Symonds d'Ewes, in his unpublished diary, notices, in 1621, the excessive cheapness and plenty of wheat. . . . The best wheat was then 2*s.* 8*d.* and 2*s.* 6*d.* the bushel, ordinary 2*s.*; barley and rye, 1*s.* 3*d.*
>
> "The farmers murmured; the poorer sort traversed the markets to find out the finest wheats, for none else would now serve their use, though before they were glad of the coarser rye bread. This daintiness was soon after punished by the high prices of all sorts of grain everywhere, which never since abated."

When the dearth came next year, the Privy Council pursued what had by this time become its traditional policy, and instructed the local justices to send in returns of all the stocks of grain within their jurisdictions. If any large quantity of these returns survive, their study would perhaps be pretty conclusive on the question at issue. One such "certificate" has been printed by Miss Leonard.[2] It is for the hundred of Lackford and the half-hundred of Exning in the county of Suffolk; it was drawn up on February 7, 1623, after "presentment and inquiry of a jury"; it is signed by the three "justices of the peace inhabiting within the hundreds"; and it runs thus :

> "Inprim. in wheate two hundred fiue score and ten Com[les] and thre bush[lls].
>
> "In Rye thre thousand and two combes.
>
> "In Barly eight thousand thre hundreth and fifty fiue com[les].
>
> "In Malte foure thousand twenty seuen combes and thre bushells.
>
> "In Pease four hundreth twentye seuen combs and thre bushells."

The coomb is, of course, four bushels; and the certificate notes that for all kinds of grain the "hundred" was six score. The large quantity of barley will not surprise us, for the county

[1] *History of Prices*, I, pp. 23–4. He says, "The following was written at the same period," *i.e.* 1620–1; although it must be confessed it reads as if it were written much later, though perhaps before the run of cheap years beginning in 1652.

[2] *English Poor Relief*, p. 334.

of Suffolk, like those of Norfolk and Essex, was doubtless then, as it was later, one of the chief sources of supply of barley and malt for the London brewer; though some of the stock here certified was perhaps consumed in the form of bread. It can hardly, however, be of small significance that the store of rye was more than ten times as great as the store of wheat. If the extent to which the several crops were planted was in anything like the same proportion, it is not surprising that the Lover and his Lass of the song in *As You Like It*, passing "o'er the green corn-field in the spring time," should rest "between the acres of the rye." And, similarly, the "bagfull" or "pocketfull of rye," in the familiar nursery jingle prompted by the Elizabethan fancy of hiding birds in a pie, may have had a pertinence beyond the mere exigency of rhyme.[1]

One of the bits of information for this period links itself on, in a curiously complete fashion, as we shall find later, with information for earlier centuries. The city companies of London had long been required by the municipal authority to provision the city with stores of corn in certain definite amounts, much of the grain being purchased from importing merchants. There is abundant evidence that this grain was very largely rye from the Vistula country, shipped at Dantzig, though, even thus early, some wheat was also sent from that region. By 1631 the "corn custom" was breaking down. In that year the Lord Mayor informed the several city companies that "great quantities of corne (being rye)" had been bought from the East countries, but found "no vend." They were therefore bidden to buy a prescribed quantity at a prescribed price. If we may trust Herbert,[2] the Grocers' Company declined, on the two grounds: that the Act of the Common Council "expressed only wheat"; and

> "that they had found, notwithstanding dearths, the poor would not buy barley or rye, either alone or even if mixed with two thirds wheat; so that 500 quarters of rye would require 1800 quarters of wheat to mix with it; that what they had so mixed formerly remained on their hands."

When we consider that the City was just at this time bent on making non-parliamentary government by the Privy Council as difficult as possible and was offering a vigorous resistance to other parts, as well as to this, of a food policy which was nothing but a continuation of Tudor control,[3] we need not take the proportion

[1] See the note in Halliwell's *Nursery Rhymes*.
[2] *Livery Companies*, I, p. 149.
[3] Cf. Gardiner, *History of England*, VII, p. 163.

eighteen to five too seriously. Still, for the excuse to have any plausibility, there must have been a popular demand for an ever-increasing proportion of wheat in the maslin bread. For when we go back to 1590 we find the Companies ordered, and then submitting, to provide wheat and rye in the proportion of two to one.[1] A quarter of a century before that, in 1565, an Act of the Common Council had ordered the mayor and aldermen regularly to buy, at the cheapest season of the year, "for the city's provision" "a great and substantial mass and quantity of wheat," and to "make yearly the like provision of rye and barley."[2] The meaning of "like provision" is not clear: it may mean as much rye and barley, singly or together, as wheat, or it may be used loosely. That in earlier times a smaller proportion of wheat than of two to one was customary in London we may find later some reason to believe.

For the years just before and after the Armada there is some interesting evidence from outside London. The regulations for the House of Correction at Bury, drawn up in 1589,[3] gave the inmates rye bread only, but as much as eight ounces per day. This and the years just preceding were not years of dearth; but it is quite possible that the ordinary food of the labourer in that neighbourhood was by this time maslin, and that rye was meant as the plainest bread available and somewhat of a punishment. 1586, however, was a year of dearth, and the Privy Council ordered returns to be sent in of existing stocks. So far as I know, only a small portion of one of the Certificates has been printed, and this also by Miss Leonard.[4] This return, made by the Chief Constables of the hundred, on June 20, for the single parish of North Pukenham in Norfolk, shows that seven persons therein, with households numbering forty-five persons, then had in store sixteen coombs of wheat, eighty-two coombs of "messelyng and rye," and twenty-seven coombs of malt barley. Meanwhile the same policy of municipal provision of grain was being followed at Bristol as at London: grain was brought in 1586 in five ships from Lynn and Boston carrying "wheat, rye, malt and barley"; in 1594 1,200 pounds' worth of "wheat and rye" was purchased; in 1596 3,000 "quarters of Dansk (Danzig) rye."[5]

[1] "For the furnishing of 6000 quarters of grain, whereof there must be 4000 quarters of wheate and 2000 quarters of rye": in Gras, *Evolution of the English Corn Market*, p. 424.

[2] Herbert, I, p. 138.

[3] Cited by Leonard, p. 114, from Eden.

[4] *Op. cit.*, p. 316.

[5] *Ricart's Kalendar* (Camden Society, 1872), pp. 61–63.

We are now prepared to appreciate the full meaning of what Harrison tells us in his *Description of England* prefixed to Holinshed's *Chronicle* in 1577. The italics are mine.

> "The bread throughout the land is made of such grain as the soil yieldeth; nevertheless the *gentility commonly* provide themselves sufficiently of wheat for *their own table*, whilst their *household and poor neighbours* [*in some shires*[1]] are forced to content themselves with rye or barley, yea and, in time of dearth, many with bread made either of beans, peas or oats, or of all together and some acorns among."

Harrison goes on to describe various kinds of wheaten bread, beginning with the best manchet or white bread, and descending through "cheat" and "ravelled" to "brown," of which there were, he tells us, two sorts. The very worst "hath little or no flour left therein at all"; and he continues:

> "Hereunto . . . because it is dry and brickle in the working (for it will hardly be made up handsomely into loaves) some add a portion of rye meal, . . . whereby the rough dryness or dry roughness thereof is somewhat qualified, and then it is named *miscelin*, that is bread made of mingled corn, albeit that divers do sow, or mingle wheat and rye of set purpose at the mill, or before it come there, and sell the same at the markets under the aforesaid name."

So much for bread in which there was at any rate some wheat. His next sentence, however, is "*In champaign country much rye and barley bread is eaten*, but especially where wheat is scant."[2]

In this sentence we have, I am convinced, one of the keys to the whole problem. "Champaign" or "champion" country means open-field tillage, as opposed to "several," *i.e.* it means what was once wellnigh universal in the arable districts and largely preponderated down to the middle of the eighteenth century, in spite of the enclosures of the Tudor period in the Midlands. Open field agriculture, for the larger part (omitting, that is to say, all the difficult questions suggested by the demesne share in the fields), meant cultivation by peasants (villeins, customary tenants, copyholders), with very scanty capital. Now on "poor light soils"—how large a proportion they originally formed I do not know—while rye can be raised without difficulty, wheat can only be grown after much has been done in the way of liming or marling or manuring,[3] as the case may

[1] Added in the edition of 1587.
[2] Reprint under the title *Elizabethan England* (Camelot series), pp. 96, 98.
[3] See Rham's *Dictionary of the Farm* (ed. 1853) *s. v.* Rye.

be. As to the exact effect of these ameliorative measures we must refer to the agricultural experts. It is possible that earlier centuries exaggerated the merits of lime, though we cannot disregard such testimony as that of Sir John Sinclair :

> "The rye lands of Herefordshire in 1636 refused to produce wheat, pease or vetches; but since the introduction of lime they have been so fertilised as to be successfully applied to the growth of every species of corn."[1]

Arthur Young's rival, William Marshall, writes frequently in the same sense. Thus, speaking of Yorkshire, he tells us

> "Now rye is principally confined to the Moreland-dales; and even there *the alteration of soils by lime* (Marshall's italics) has been such that wheat has become the more prevalent crop."[2]

But whatever the measures necessary, they involved expenditure which the small open-field farmer would seldom be in a position to undertake. And what is true of the customary tenant would also be true of an impecunious lord of land. And so in recent times in Russia we are told that rye was "the only winter crop on peasant farms, as well as on the smaller estates approaching the standard of peasant agriculture," whereas "on the larger estates" it was "supplanted to a vast extent by winter wheat." Even more attention was given to wheat in Russia on estates which had been bought by rich business men from the cities, and on such "capitalistic farms" larger wheat crops were obtained.[3]

Fortunately we are not compelled in the case of England to rely upon theoretic considerations or foreign analogies. We have direct testimony from Thomas Tusser in his *Five Hundred Points of Good Husbandry*, published in 1558.[4] Although there is a great deal said by him about wheat, the attentive reader will be struck by the prominence of rye, and the way it is put first. Thus :

> "'Thresh seed, and to fanning' September doth cry,
> 'Get plough to the field and be sowing of rye' . . .
> Sow timely thy white wheat, sow rye in the dust;
> Let seed have his longing, let soil have her lust :
> Let rye be partaker of Michaelmas spring,
> To bear out the hardness that winter doth bring."[5]

[1] Sinclair, *Code of Agriculture*. I quote from the American edition (1818), p. 135.
[2] *The Rural Economy of Yorkshire* (1787), II, p. 15.
[3] Hourwich, *Economics of the Russian Village* (Columbia Studies, 1892), pp. 145–153.
[4] I quote from the reprint of *Some of the Five Hundred Points, etc.*, published by Parker, 1848.
[5] "September's Husbandry."

Coming on to the next month, he tells us :

> "Green rye in September when timely thou hast,
> October for wheat sowing calleth as fast."

As to the relative possibilities of various grains, he reminds his reader :

> "Each soil hath no liking of every grain,
> Nor barley and wheat is for every vein."

But much could be done by good husbandry, especially by manuring, and he takes credit to himself for replacing rye by barley and wheat on his own farm :

> "In Brantham, where rye but no barley did grow,
> Good barley I had, as a many did know.
> Five seam I truly was paid,
> *For thirty load muck*, of each acre so laid.
>
> In Suffolk again, *whereas wheat never grew,*
> *Good husbandry used, good wheat land I knew ;*
> This experience long ago gave,
> That nothing who practiseth, nothing shall have."

It is sad to relate that, in spite of his enterprising "practice," Tusser did not succeed as a farmer.

Pushing back another generation, and coming to the dearth year 1520, we find the method of survey of corn stocks already practised in at least one important town, that of Coventry : as in so much else, the Tudor policy probably only extended to the whole country, as ruled by the Privy Council through the justices, what had grown up in the towns under their municipal magistrates. The return then made as to "what stores of all Maner of Corne, and what number of people were then within the said city" may be reduced to the following table ; the measures being quarters and strikes (*i. e.* bushels).

Ward.	Persons.	Malt.	Ry	Wheat.	Oats.	Pease.
Earl St. . .	707	"malt and barley" 454 q.	36½ s.	17 q. 2 s.		
Smithford St.	406	220 q.	15 q. 2 s.	2½ q.	27 q.	7½ q.
Gosford St. .	875	456 q.	"Wheat and Rye" 16 q.			1 q.
Much Park St.	719	287 q.		14½ q. 1 s.		7 q.
Bishop St. .	1018	334 q.	"Wheat and Rye" 26 q.			1 q.
Bayly Lane .	459	150 q. 3 s. barley 20 q.	19 q.	1 q. 6 s.	9 q. 2 s.	1 q. 6
Broadgate .	552	100 q.	1 q. 5½ s.	1 q. 3 s.	2 q.	
Cross Cheaping	884	180 q.	18 q.	1½ q.		
Jordan Well .	354	100 q.	3 q.	"nullum"		
Spon St. . .	627	198 q.	"Rye and Wheat" 3 q. 7 s.			

I have not sufficient local knowledge to account for the differences between the several wards. The totals as given in the return itself are:

Persons	6601	
Malt	2405 quarters	
Rye and Mastlin	100 „	1 strike
Wheat	47 „	
Oats	39 „	2 „
Pease	18 „	2 „

Since all the barley found in the wards is included under Malt in the total, I am afraid we cannot suppose any amount worth mentioning went into bread: we can only marvel at the provision our forefathers made for their drink: the proportion of drink corn to bread corn is truly Falstaffian. What more immediately concerns us is that the combined store of rye and maslin was more than twice as large as that of wheat. And if the details can be relied upon, they suggest an interesting conclusion. The ward returns do not include maslin *eo nomine*. The ward entries of wheat amount to thirty-nine quarters only, the ward entries of rye to sixty-one and a half quarters, and the ward entries of "wheat and rye" or "rye and wheat" to almost forty-six quarters. It is clear that to make up the city total of forty-seven quarters of wheat it would be only necessary to reckon in eight quarters from the forty-six assigned by the wards to "wheat and rye." That would leave almost thirty-eight quarters of the ward "wheat and rye" to add to the ward rye to make up the city total of 100 quarters of "rye and maslin." It enables us, in other words, to break up the 100 quarters into some sixty-two of rye, and thirty-eight of maslin (composed of unknown proportions of rye and wheat). Placing by the side of these the forty-seven quarters of wheat, it follows that the store of bread corn found in one of the most important cities of the Midlands in 1520 consisted of grain in the percentages following: rye forty-two, maslin twenty-five, wheat thirty-three. Approximate conclusions such as these enable us to conjecture what elsewhere is implied when the actual grain is not mentioned. Thus, at this very period, in the West Country, the municipal authorities of Bristol were providing what in 1522 is described as "whete, corn and other grayns necessary and beneficiall for the commons," and in 1532 as simply "whete and corn."[1] In Bristol at any rate "corn" did not in common speech mean wheat.

[1] *Ricart's Kalendar*, pp. 49, 52.

From 1520 I must make a long leap backward—some century and a half, to the time of Gower and Langland. Gower about 1375 complains of the extravagant demands of labourers. "Labourers of old were not wont to eat of wheaten bread; their meat was of beans or coarser corn." [1] Writing a year or so later, William Langland rebukes the "wasters"—the discontented labourers—who refused to work unless they were paid higher wages than the statute allowed, and would not eat any bread with beans in it, demanding bread "of cocket or clerematin or else of clean wheat." It is only "the blind and the bedrid or broken of limb," to whom his ideal hero, Piers the Plowman, promises that they "shall have as good as I," or as another version puts it, shall "eat whete bred and drink with myself." [2] Each writer treats the labourers' demands for wheaten bread as novel and extravagant. Yet they may be regarded as marking the beginnings among the agricultural working population of a transition which was destined to spread over four centuries.

A step further back of half or three quarters of a century brings us to a group of testimonies which cannot be easily dated but all fall probably within the reign of Edward II and Edward I (1327–1272). One concerns tillage, three concern diet. The first is the passage in the anonymous treatise on "Husbandry," which is roughly contemporary with Walter of Henley and has been edited with him. This has an interesting section on the amount of return to be expected to the seed sown of the several kinds of grain.[3] The presumption surely is that the grains are given in their order of practical importance. Barley, the drink corn, heads the list; it should yield eight-fold. Then follow the others:

Rye	7
Beans and Peas	6
Drage of Barley and Oats equally mixed,	6
[But if more Barley than Oats,	*more*
if less ,, ,, ,,	*less*]
Mestilon of Wheat and Rye equally mixed,	6
[But if more Rye than Wheat,	*more*
if more Wheat than Rye,	*less*]
Wheat	5
Oats	4

And now for the dietarics. It will be remembered that the

[1] I owe this passage to Mr. Coulton's *Social Life*, p. 353.
[2] See Skeat, *Piers the Plowman* (Oxford 1886), I, pp. 204 . 222–3.
[3] *Walter of Henley* (ed. Lamond, 1890), p. 71.

Londoners of 1631, according to the rather prejudiced account of the Grocers' Company, turned up their noses at maslin composed of wheat and rye mixed (not in sowing but in milling or baking) in the proportions of two to one. In Edward II's reign there is a curious bit of evidence that for the inferior classes the common mixture in London was half and half. The Warden and Brethren of London Bridge, no doubt for an adequate return, granted a "corrody" to a certain citizen and his wife. They were given rooms in the Bridge House and food for themselves at (or from) "the upper table of the House," and food for one female servant "with the *free* household of the House at the second table." The implication is that there was a still inferior diet, perhaps at no table at all, for more or less servile members of the household. If the citizen pair should leave the House, they can send and fetch "two white loaves and two gallons of the better ale as used at the upper table." It is surely implied that these were for themselves; the following sentence must include the maid's allowance: "half a quarter of wheat and half a quarter of rye annually, every sixteen weeks, to be taken at the grange of the House from the best corn growing on the lands belonging to the House, or of equally good purchased corn, if by chance the lands do not supply them—which God forbid." [1]

For a date rather earlier, "towards the end of the thirteenth century," we have a highly significant statement as to the allowances in kind made to the reeve and farm servants on an Oxfordshire manor belonging to the abbey of Westminster.[2] It is shown best in tabulated form: and I omit all except the grain items. For convenience of comparison the amounts are reduced to bushels, at the rate of eight to the quarter.

	Wheat.	Rye.	Oats.	Beans.
Reeve	12	12	24	3
at harvest	2			
Sergeant (upper servant) . . .	44			
Carter	13	24		9
Ploughman	13	24		9
Ploughman	13	24		9
Shepherd	13	24		9
Cowherd	9	18		5
Dairywoman	7	12		5
Swineherd	4	8		2
Summer Shepherd	4	4		2
Second Carter	2	3		2

[1] *Munimenta Gildhallæ* (Rolls' Series), III, p. 449.

[2] Account in Denton, *England in the Fifteenth Century*, p. 317; ascribed to Bromfield's *History of Launton*, MS.

I will not attempt to interpret the reeve's allowances: we are told that he was usually a monk from Westminster; and the large allowance made to the upper servant awaits explanation. But it will be seen that most of the other servants are given roughly twice as much rye as wheat: the exact quantities for the whole staff below the sergeant being 141 bushels of rye and 78 of wheat.

Equally instructive, I cannot but think, was the practice as to "boondays." "Boondays" or "precariæ" were days upon which the villeins or customary tenants were bound to perform labour services additional to their regular "week work" of two or three days every week of the year. The custumals show that on some of these days of extra work the tenants were fed by the lord, and wheaten bread is sometimes mentioned as if it were a special luxury and attraction. Thus on the manor of Crowmarch in Oxfordshire, belonging to Battle Abbey, it is expressly said, in the time of Edward I, that all the "custumars" were to be fed twice a day at the autumn boon work, and that while at even they were to receive with their ale and potage and meat simply "bread," at "none" with their ale and cheese they were to receive "wheaten bread."[1] The conjecture that "bread," when used alone, does not mean pure wheaten bread, would seem to be confirmed by what we learn of the practice on the manor of Ardley belonging to the Chapter of St. Paul's. There, on the better provided "ale boondays" as distinguished from the less attractive "water boondays," every two men, besides porridge of beans or peas, got with their meat and ale one large white loaf, and a small loaf of maslin, and for their evening meal, a small loaf of maslin together with cheese.[2]

The date of this is uncertain, and it is possible that my last citation will be the earliest of all. It comes from the Register, or rather the Rental, of the Priory of Worcester drawn up in 1240. On the manor of Grimley the ancient requirement (the "ancient assize") had exacted from each villein holder of half a virgate three days' work a week, and certain other miscellaneous services or payments, including for "chirchset"—apparently for the church—"six windels (or baskets) of wheat *or* rye." A "new assize" or settlement had been more recently made, by which, apparently, payments in kind had been sub-

[1] *Custumals of Battle Abbey* (Camden Society, 1887), p. 89.

[2] From Archdeacon Hale's Notes, p. lxviii, to the *Domesday of St. Paul's* (Camden Society, 1858). He refers to the unprinted Book 1 in the archives of St. Paul's, which he uses in his Commentary on the Domesday of St. Paul's (1222).

stituted for labour. The pertinent passage is headed "Total of Wheat and Rye. Total of Oats." At the time of writing

> "each half virgate, according to the new assize, pays annually into the granary four quarters of wheat and one quarter of oats" (and so in proportion for a holding one half and one quarter that size). "*In this assize three cronns*" (or half-quarters) "*of rye are reckoned for three cronns of wheat.*"[1]

As rye was certainly less palatable to the monks of Worcester, the suggestion of the editor that there is a slip of the pen in the figures is highly plausible. But that there should be a recognised equivalence between wheat and rye, whatever the proportion may have been, would seem to indicate that landlords at this time were trying to get wheat but often had to put up with rye.[2]

The patient reader will probably agree that I have made out a strong presumption for my contention. That contention is indeed not original. It was put forward as long ago as 1888 by Mr. R. E. Prothero (now Lord Ernle) in his *Pioneers and Progress of English Farming.* Speaking vaguely of the earlier centuries of English husbandry, he declared "Of grain crops rye was the chief. . . . Rye was then the breadstuff of the peasantry."[3] But the scheme of his book precluded references to authorities. Moreover these assertions, quite sound as I believe, were accompanied by other assertions which went too far; as that "by itself wheat was seldom sown"; assertions of which the author has himself since repented, since they were quietly dropped when in 1912 much of the text of the *Pioneers* was reproduced in his larger treatise *English Farming, Past and Present.* Perhaps for these reasons, perhaps because the *Pioneers* was for some years out of print, Rogers' sweeping statements have remained in possession of the field, and are to-day continually being reproduced in little manuals.

Prima facie the weight of authority is on the side of Rogers. Here is a scholar who has collected tens of thousands of prices of wheat and has found for the early ages very few prices of rye. His conclusion looks like the obvious one and cannot be overthrown by any mere assertion, however congruous with what we know of the general development in the rest of Europe. Rogers'

[1] *Register of Worcester Priory* (Camden Society, 1865), p. 43a.

[2] The text is: "In hac assisa computantur iii cronñ siliginis pro iii cronñ frumenti, unde supra de forlandis." I will not venture on an interpretation of the last clause. The tenants of forlands, given immediately before, are mostly assessed in wheat, but some in rye.

[3] P. 13.

facts have somehow to be explained; explained, that is, assuming that they are to be taken *in bulk* at their face value. For unless we had worked through the material he used we could not be quite sure of the answers to some rather pertinent questions. For instance, quite how much is involved in Rogers' statement that he has "generally omitted all notices of inferior grain," explained elsewhere as "inferior qualities"?[1] Did he always recognise rye even when he met it? Under the year 1303 he gives one entry for *sigal*, and does not attempt an explanation:[2] a recollection of the French *seigle* and reference to what the philological French dictionaries and Ducange tell of the derivatives in mediæval Latin and old French from Pliny's *secale* might have put him on a track of discovery.[3] Can we be sure that Rogers' "wheat" is always a translation of "frumentum" or "triticum" and is not sometimes a translation of the undifferentiated *bladum* or "corn"? This is a mistake which even a Jacobean lawyer like Rastall fell into when translating the *Assize of Bread.*[4] And, finally, there is this other harassing doubt. *Frumentum* itself had clearly come to mean wheat as early as the thirteenth century in some places, just as *froment* in French. But can we be quite sure that *all* the early entries of *frumentum* in Rogers' sources did mean wheat? A reference to Lewis and Short's Latin Dictionary will show that in classical Latin it was undifferentiated "corn" or "grain"; and that both Pliny and Columella use it as including other kinds of grain beside *triticum*, which is undoubtedly wheat. I had already written so much when I noticed that, according to Inama-Sternegg, rye is actually called *frumentum* in an Austrian document of the Middle Ages. And this would be natural enough in ages when, as the same author observes, rye was in Germany very generally spoken of simply as "corn."[5]

Yet, even if some deductions had to be made from Rogers' figures, there would remain a very large preponderance of wheat entries. And the only apparent way to reconcile this fact with the probability that rye was the main food of the people is to suppose that under a system where most of the farming was subsistence farming, rye did not enter into trade to anything like the extent of its place in the national dietary. Wheat was

[1] *History of Agriculture*, I, pp. 182, 187.
[2] *Ibid.*, II, pp. 173, 174.
[3] Compare also Inama-Sternegg, *Deutsche Wirtschaftsgeschichte* (1891), p. 227.
[4] See Rastall's *Statutes*, p. 1915, *s. v.* Weights. It is his translation which is given in the *Statutes of the Realm*, I, p. 199. We shall return to this later.
[5] *Op. cit.*, III (1899), p. 331.

early preferred by the upper classes, and by the better-to-do townspeople. It was the demand of the townspeople for wheat and for maslin which occasioned the growth of markets, and drew supplies to them. The sales recorded by Rogers were sales, I believe, chiefly by manorial bailiffs, and consisted, of course, of the produce of the demesne lands. That there was a distinction in this respect between demesne land and tenants' land, the latter keeping mainly to rye, the former turning more to wheat, has been asserted by Lord Ernle.[1] Unfortunately he adduces no evidence, but it fits in with the impressions we get when we turn over the mediæval custumals: and it is noticeable that Walter of Henley, who had himself been a bailiff, puts "land sown with wheat" in the foreground.[2] If we were in the pre-Seebohm days, when the demesne land was thought of as altogether apart from the villein or customary land, we should have no difficulty in picturing the supposed state of things. There is a difficulty if we now think of the demesne as normally lying in scattered strips in the open fields and subject to the same rotation. But perhaps we have gone too far in that direction; in very many manors there may have been separate closes on which wheat could be grown from very early times;[3] and it is likely that desire to raise wheat for the lord's use or for market was a force continually operating to disentangle the demesne from the open field.

These considerations enable us to deal with what Rogers regarded as a conclusive argument in favour of his view concerning the use of wheat.

> "No better proof can be given than an account of the acreage devoted to the different kinds of grain on various estates. It will be plain that the crop with the widest area was the staple produce."[4]

He proceeds to point out that, during the years 1333–1337, on an area varying from 1,206 to 1,457 acres, belonging to Merton College, wheat was sown on from 460 to 510 acres, oats on from 300 to 335 acres, barley on from 263 to 396 acres, and rye on only from 50 to 72 acres. These figures would be conclusive for a particular manor if they all referred to one manor. But in fact they are totals drawn from as many as eleven places, in each of which the College possessed a small property—averaging some 132

[1] *English Farming*, p. 8.
[2] *Op. cit.*, p. 19.
[3] Cf. Inama Sternegg, II, 228.
[4] *Six Centuries*, p. 59. Cf. *History of Agriculture*, I, p. 26.

acres. That the College should grow, for its own use or for market, a good deal of wheat on the quite small fragments of manors which it happened to have been given in various districts —naturally, in most if not all cases, demesne land—is no conclusive indication of what the villeins around were doing.[1]

We may get nearer to the practice of the ordinary peasant if we look at the case of Thomas Sampson, one of the Suffolk leaders in the Rising of 1381. He had then 164 acres under crop. At the village of his residence he had 18 acres under wheat, 17 under rye, 23 under barley, 26 under peas and oats; at one neighbouring village, 2 acres under wheat, 5 under rye; and at still another, 16 acres under wheat and 8 under drage (resembling barley). Now Sampson was a man of means, for he owned 300 sheep, 45 cows and oxen and 18 horses; a man probably of enterprise, for he owned one-eighth part of a ship in the port of Harwich; and a man of influence, for he contrived to secure a pardon. And yet the farming policy of a man like this put a much larger proportion of land under rye than we find on the scattered Merton properties.[2]

When he came to write his *Six Centuries* in 1884, Rogers thought it worth while to argue his case at some length. Besides the point as to acreage, he adduced three other considerations. One was that monastic chroniclers, when noting years of dearth, mention only the prices of wheat. But as the monks at their "upper table" ate white bread, it was the price of wheat that would interest them in the first instance. That the fact as to price notices is as Rogers stated it will be seen by looking into Fleetwood; but it is amusing that Fleetwood, like Rogers, when he does happen to come across rye does not recognise it.[3] Another point made by Rogers is that the mediæval prohibitions of export relate only to wheat, barley and malt. But if the grain trade within England itself was for a long time limited to these cereals, we cannot be surprised that during the same period the export trade was similarly confined.

With Rogers' fourth argument I shall conclude the discussion. It is based on the well-known *Assize of Bread*.

> "The Assize takes no account of any but wheaten bread. . . . I cannot but think, in the provident care which the legislature

[1] The details are tabulated in *History of Agriculture*, I, p. 44 seq.

[2] The text of the Escheator's Inquisition is printed in Powell, *The Rising in East Anglia* (1896), p. 143.

[3] "*Siliginis* (which, what it is, I know not), per Quarter 1s." from H. Knighton, *s. a.* 1387; *Chronicon Preciosum*, p. 97.

took at so early an epoch of the interests of the consumers, attention would have been given to rye or oaten or barley bread, if those had been in early times the food of the people."[1]

Now let it be granted at once that the *Assize*, in all the many versions that have survived, starts with "frumentum" or wheat, makes the weight of the loaf vary with the changing price of wheat, and does not explicitly mention any other grain. But it is not exact to say that it "takes no account of any but wheaten bread." For the last sentence in the general opening paragraph runs, "Et panis de om̄i blado ponderabit" so much. The English version, attributable as we have noticed to Rastall, runs, "Bread of common wheat." *Bladum* (blé) is of course undifferentiated corn or grain, and "wheat" here is a mistake. "Common" is a translation of *co͞i* (*i. e. communi*), which is found in one of the texts. But the meaning of *om̄i* (*i. e. omni*) is more correctly given in the old French version in the London *Liber Horn*—"*tous* bleds." That is, even the *Assize of Bread* makes room for "maslin." Moreover, there is the mystery of "tourt" or "tret" bread to be explored; this the *Assize* mentions just before the sentence last quoted. It seems to have been a coarse bread of some kind, sold in the shape of disks. Whatever it was, it was not, in London, white bread.[2] It may quite well have been bread made of wheaten flour very coarsely milled. But it is just worth mentioning that at the famous French monastery of Cluny, *tourt* was rye bread.[3] Moreover, there is no insuperable difficulty in supposing that "the price of wheat ruled the rate at which rye bread or any other bread was to be sold." This was Dr. Cunningham's view;[4] and it is borne out by the fact that in 1437 at Beverley a baker "was convicted of having two loaves of *black* bread deficient in weight 4*s*. 6*d*. each, the quarter of wheat being 6*s*."[5]

But suppose we grant that the bakers in the towns were concerned almost entirely with the making of white wheaten bread. That this was so, leaps to the eye when one turns over the city records. As late as 1586, Burleigh thought it necessary to send down instructions into the provinces that the authorities

[1] *Six Centuries*, p. 61.

[2] "No maker of *tourte* shall make white bread or the reverse," *Liber Albus*, translated by Riley, p. 319. "In London" must be added, for in Beverley we come across *torta alba*.

[3] Panis Sigali qui Turta vulgariter appellatur: *Consuet. Cluniac.*; Ducange, *s. v.* Turta.

[4] *Growth of English Industry and Commerce* (ed. 4), I, p. 569.

[5] Leach, Introduction, p. liii, to *Beverley Town Documents* (Selden Society, 1900).

should "take order with the common bakers for the baking of rye, barley, peas and beans for the use of the poor." [1] But what then? Surely the explanation is that the bakers worked for the relatively well-to-do townsmen who preferred and could afford white bread. There is not the least reason why we should not suppose that the poorer townspeople, like the country people, generally baked their own bread and were normally quite unaffected by the Assize of Bread.

> "How wasteful, and indeed how shameful for a labourer's wife to go to the baker's shop; and how negligent, how criminally careless of the welfare of his family must the labourer be who permits so scandalous a use of the proceeds of his labour!" [2]

With Cobbett saying this as late as 1821, and with what we know of the slow abandonment even to-day in the north of England of the practice of baking bread at home—a practice still universal in New England—must we not feel that the importance of bakers in the life of the great mass of the English people in earlier centuries has been grossly exaggerated and misconceived?

The foregoing rather hasty collection of a few of the more accessible pieces of evidence is intended only to point the way to the far more thorough investigation which the problem obviously calls for. But some general observations are perhaps, even at this stage, not out of place. The first is the necessity in all such investigations of holding a due balance between the specifically English development and the general West-European movement. Of course, we must not neglect local or national peculiarities; but our temptation, I think, is in the other direction: to be overhasty in congratulating ourselves that we English were not like those foreigners—that we were peculiarly free, with a Parliament all our own, and bread of special quality. It may be said: "Ascertain first the lines of national evolution: it will then be time enough to compare them with what can be discerned outside." It may be replied that the lines of general West-European development are sometimes more clearly marked than those of our insular or South-British social history; and that the differences, such as there may be, in the insular proportions of the elements or in the *tempo* of the movement, are best realised when they are shown up, as it were, against the broad outlines of a bigger background.

After the sequence of the external facts has been determined,

[1] Text in Leonard, *Poor Relief*, p. 323. [2] *Cottage Economy*, § 82.

it still remains to explain them; and for that it may often be requisite to draw upon a wide range of sciences quite outside history or economics, as those words are commonly understood, as well as on some sciences still in their infancy. Take this case of cereal food. White or wheaten bread evidently came quite early to be regarded as a mark of superior social position. As soon as that was the case, its use would spread as the result of social ambition and imitation. Very soon the belief in its superior physical qualities would be strongly reinforced by habit. Thus it is significant that in reporting the favourable results of certain experiments during the War as to the digestibility of bread containing 10 per cent. barley and 10 per cent. maize or rice, the Royal Society Committee thought well to add that "the subjects thought they were eating pure wheaten bread."[1] And still we can hardly suppose that the merits of wheaten bread are merely subjective. It seems to possess, bulk for bulk, more nutritive value.[2] And it is said to be easier to digest. This may conceivably be a disadvantage; in England, maslin, according to a writer of 1617, was preferred by some labourers because it "abode longer in the stomach."[3] But as life became less strenuous, less carried on in the open air, more urban, easier digestibility would be a merit. The whole subject of industrial dietetics is almost an untilled field for physiologists.[4] When we pass from the demand side to the supply side, we have to turn to agricultural science to tell us how far the cultivation of wheat is a matter of soil and climate, how much the defects of either may be overcome by methods of cultivation and manuring, how far manures and lime were locally obtainable. And then, to guess when and where the growing demand would break down traditional habits and cause rye to be replaced by wheat, we need to know how far cultivators were free to take a new line of their own, and how far they could afford it. Thus it is no less than the whole structure of society that is involved in a problem which at first sight seems one of idle archæological curiosity.

WILLIAM ASHLEY

[1] Report of the Food (War) Committee of the Royal Society on the Digestibility of Breads, p. 34.

[2] I have not got at hand the most recent protein and calory figures. Thaer estimated the relative food value of wheat and rye as 71 to 64 (cited by Rham); Schmoller, *Grundriss*, p. 589, gives it as 100 : 75.

[3] Prothero, *English Farming*, p. 9.

[4] A beginning has been made by Grotjahn, *Über Wandlungen in der Volksernährung* (1902).

THE BASIC WAGE PRINCIPLE IN AUSTRALIAN WAGES REGULATION

FOR nearly thirty years the Australasian experiments in wages regulation have attracted the attention of students of economic problems the world over. Possibly, therefore, an account of important recent developments may be of interest to readers of the JOURNAL.

The whole wages policy of Australian governments rests upon two aims: (1) the preservation of industrial peace; (2) the elimination of sweating and the payment to even the least skilled male adult worker of a wage which will enable him to keep himself and those dependent upon him in some degree of frugal comfort. Of the extent to which the first aim has been realised little can be said here, except that the years 1916-1920 were as full of strife in Australia as the period since the Armistice has been in Great Britain.[1] Our wages laws have had about the same effect in preventing strikes as the voluntary conciliation machinery has had in British industry. New South Wales in 1918 recognised the futility of declaring all strikes illegal, and the Industrial Arbitration Amendment Act of that year admits that a strike may be legal provided (1) the members of the union are not working under an award or industrial agreement, or, if they are, decide by secret ballot that the award is no longer binding on them, and (2) fourteen days' notice is given to the Minister for Labour of intention to commence a strike. The first provision is a declaration that employees shall not strike and at the same time have the benefit of the Arbitration Court's services; the second aims at preventing impulsive strikes and at giving time for conciliatory machinery to be set in motion.

The more interesting recent development has been the attempt to determine for what standard of living the "basic wage" should provide. Away back in 1891 the late Sir Samuel Griffith, then Premier of Queensland, talked of a "natural and proper

[1] Between 1916 and 1919 (inclusive) there were 1,710 strikes; 12,500,000 working days were lost. The Broken Hill miners created a world's record by remaining on strike from May 1919 to November 1920.

measure of wages," which "could never be taken as a less sum than such as is sufficient to maintain the labourer and his family in a fair state of health and reasonable comfort." This "natural minimum wage" would have to be determined by the law of averages, and since the average family consisted of a man, wife, and three children, the minimum must be sufficient to keep these five people. But the first wages board law (Victoria) was satisfied with a much less ambitious principle. It decreed that boards should fix for a whole occupation the rates already being paid by "reputable employers." This policy was copied by Tasmania, but eventually was abandoned by both states in favour of "fair and reasonable" wages. South Australia in 1910 decided that while boards were to endeavour to fix "fair and reasonable" rates of payment, they must take into consideration the wages fixed in Victoria, so as not to handicap local industries by subjecting them to the competition of lower-paid labour in the neighbouring state.

When arbitration courts were established after 1900 the presiding judges were given little or no statutory guidance to help or limit them in making wages awards. Until 1912 no arbitration act contained any reference to, or definition of, the basic wage, and the judges in New South Wales and the Commonwealth Court were left to fix their own standards. Mr. Justice Heydon did this in New South Wales in 1901, when he declared that his business was to ensure that "every worker, however humble, shall receive enough to enable him to lead a human life, to marry, and bring up a family and maintain them and himself with at any rate some small degree of comfort." Six years later, in the Harvester Case, Mr. Justice Higgins stated that in defining the "fair and reasonable" conditions of remuneration which must be paid by harvester-makers who wished to escape the excise charges on their products, he "could not think of any other standard appropriate than the normal needs of the average employee regarded as a human being living in a civilised community." This bed-rock basic or living wage must be obtained by all male adult workers; above it there would be the "secondary wage," containing additions to the basic rate on account of skill or other considerations. This Higgins declaration became classic, and was generally accepted. In 1912 the South Australian Industrial Court was forbidden by statute to "order or prescribe wages which do not secure to the employee affected a living wage. 'Living wage' means a sum sufficient for the normal and reasonable needs of the average employee living in the locality where

the work under consideration is done or to be done." Thus, on the bench and in parliament the rule has been adopted that every man employed shall receive a wage "based, not on the value of his work, but on his requirements as a man in a civilised community which has resolved that, so far as laws can do it, competition shall be no longer allowed to crush him into sweated conditions" (Mr. Justice Heydon).

The translation of this excellent but somewhat vague aspiration into weekly wage figures raises, however, a number of practical difficulties. What size of family is to be taken as typical? What are normal or reasonable needs? Are all items except food, clothing, and rent to be excluded? What size of house ought the basic wage receiver to be able to afford? How much food, how much clothing, does his family need? How can the basic wage be adjusted to cope with a rise or fall of prices? And so on. Strange to say, the basic wage principle has been in operation for nearly twenty years, and yet no really adequate attempt was made to answer these questions until 1920. Instead, the courts either made small local and not exhaustive investigations into the cost of living,[1] according to a list of items regarded by the judge as necessary for a normal and reasonable standard; or they adopted the "fair and reasonable" standard of 7*s*. a day fixed by Mr. Justice Higgins in 1907, and increased it in rough proportion to the increased cost of living since 1907, as ascertained by the Commonwealth Statistician from 1912 onwards.

Now the Higgins decision of 1907 has been described by its author as an "empirical finding" and a "rough estimate." It was open to several criticisms: (1) The family of five persons was taken as typical, a decision which is generally approved to-day, but which at the time was not based on any statistical inquiry.[2] (2) Information concerning the cost of living was obtained from only a few households. Nine housekeeping women submitted budgets which showed that their average weekly expenditure on rent (7*s*. a week), groceries, bread, meat, milk, fuel, vegetables, and fruit, was £1 12*s*. 5*d*. The area of investigation was not wide enough; the rent figure was apparently determined on the evidence

[1] *E.g.*, Mr. Justice Heydon, in the N.S.W. Industrial Court in 1914, fixed £2 8*s*. as the basic wage, in the light of a general inquiry into the cost of living, but the investigation was not nearly so thorough as that conducted by the Basic Wage Commission in 1920.

[2] In N.S.W., Mr. Justice Heydon in 1914 took the typical family as consisting of a man, wife, and two children, and this ruling has been observed in that state ever since. Hence a Sydney worker gets wages for two children if he comes under a State award, but for three children if he is under a Federal award.

of nine women and one land agent, and referred to rents of cottages in an industrial village, not in a capital city. (3) No attempt was made to ascertain whether the house obtained for 7*s.* afforded reasonable comfort, or whether the £1 5*s.* 5*d.* spent on food and fuel procured an adequate quantity or quality. (4) The outlay of £1 12*s.* 5*d.* covered only two of the recognised sections of the cost of living—rent and food. It left untouched the other two sections—clothing and miscellaneous requirements. Judge Higgins declared that a wage of 6*s.* a day, *i. e.* 36*s.* a week, would leave only 3*s.* 7*d.* to cover clothing, light, furniture, rates, insurance, fares, union and friendly society dues, sickness, etc., and that the area was "rather large" for 3*s.* 7*d.* a week to cover. But he made no attempt to ascertain what sum would be necessary to meet the cost of a fair and reasonable supply of clothing and miscellaneous items. (5) Having decided that 6*s.* a day was too low, the judge then looked at the rates prevailing elsewhere, and found that thirteen Victorian municipal councils "which do not aim at profit, but which are responsible to electors or others for economy," paid a minimum of 7*s.* Other bodies paid as low as 6*s.* 6*d.*, but an agreement between employers and employees in the South Australian harvester industry had fixed 7*s.* 6*d.* as the minimum wage. The Judge hesitated between 7*s.* and 7*s.* 6*d.* and finally decided that he did not think he "could refuse to declare an employer's remuneration to be fair and reasonable" if he paid 7*s.* a day or 42*s.* a week. This would leave 9*s.* 7*d.* a week to meet the cost of clothing and miscellaneous expenses; but here again no effort was made to discover whether this sum was enough.

Other criticisms might be brought against this pioneer decision, but the above will suffice to indicate that the Harvester finding was not so well grounded on thorough investigation as was necessary in view of its subsequent importance. These criticisms must not blind us to the fact that Mr. Justice Higgins was stepping unaided into unknown country; he had no body of principles or data to guide him; there was no investigating bureau which he could ask to assist him in his inquiries; and therefore the task he accomplished will always stand out as a fine first landmark in the history of wages regulation. In 1908 the doctrine of the living wage and the minimum of 7*s.* were incorporated in the body of arbitration law, and the rate fixed was subsequently adjusted from time to time by the Federal Court. In making these adjustments, another possible error crept in. Since 1912 the Commonwealth Statistician has published an index number,

with 1911 as base, showing the weighted composite increase in the cost of rent, food and groceries. This index number has been adopted to indicate the proportion by which the basic wage should be increased. But it deals with only two of the four sections of working class expenditure, rent and food, which constituted in 1913 about 60 per cent. of the expenditure of a household. It tells nothing of movements in the cost of clothing and miscellaneous items. Hence to determine a wage which has to meet all four branches of expenditure by an index number which records price movements of only two of them is a practice which is accurate only if we make the unsafe assumption that the cost of clothing and miscellaneous items has moved in the same proportion as that of rent and food.

By 1917 voices were being raised in criticism of the 1907 figure, the methods by which it was reached, the basis on which it was founded, and the policy of taking the rent and food figure only as a guide in its revision.[1] Both the President and Vice-President of the Commonwealth Arbitration Court suggested in 1917 and 1918 that the Federal government should appoint a commission to inquire into the whole matter, fix a fair and reasonable standard of living, and state the wage required to meet the cost of that standard. This suggestion was eventually adopted, and Mr. Hughes announced in his policy speech prior to the December 1919 elections, that a Royal Commission was to be appointed. The appointment was made in early December, to inquire into and report on "(1) The actual cost of living at the present time, according to reasonable standards of comfort, including all matters comprised in the ordinary expenditure of a household, for a man with a wife and three children under fourteen years of age, and the several items and amounts which make up that cost. (2) The actual corresponding cost of living during each of the last five years. (3) How the basic wage may be automatically adjusted to the rise and fall from time to time of the purchasing power of the sovereign." Mr. Hughes promised that the government would "at the earliest date possible create effective machinery to give effect to these principles," and thus satisfactorily, "because permanently," settle "the fundamental question of the basic wage."

[1] The N.S.W. Board of Trade in 1918 refused to recognise the force of criticisms similar to those outlined above, and readjusted the basic wage for that state in the light of Mr. Knibbs' figures, showing the increased cost of rent and food (*N.S.W. Industrial Gazette*, October 1918, pp. 391–5). A year later, however, it admitted the need for separate treatment of fuel and light, clothing and boots (*ibid.*, October 1919, pp. 449–53).

The Commission contained three representatives of employers and three of employees; as is usual, no economist was chosen. Mr. A. B. Piddington, K.C., Chief Commissioner of the Interstate Commission, was appointed chairman, and Mr. J. T. Sutcliffe, who for many years had been in charge of the Labour and Industrial Branch of the Commonwealth Statistician's office, was chosen to act as secretary and statistician. The wanderings of the Commission from State to State, the examination of 800 witnesses, the accumulation of hats, coats, suits, and other exhibits, the partial boycott of the inquiry by the employers, all combined to make the Commission's work as interesting, and at times as entertaining, as some of the public sessions of the British Coal Commission of 1919. Counsel was provided for both sides by the government, and both employed investigators to assist in gathering information and coaching witnesses. In the hope of keeping the Commission's findings as low as possible, the employers' organisations endeavoured, in vain, to persuade Mr. Hughes to instruct the Commission to find the requirements of only the "humblest worker," and to record separately the cost of living for each member of the family. The unions, on the other hand, bid hard to get the cost of living figure as high as possible. Their counsel submitted an elaborate regimen, the cost of meeting which amounted to over £11 a week. Some witnesses made equally extravagant assertions concerning the number of new suits, etc., required each year; but they only succeeded in convincing the Commission that their evidence was "at the best misdirected propaganda, and at the worst futile imposition."

Between the two extreme view-points the Commission steered a skilful independent course, and yet its findings, published after eleven months of strenuous investigation and discussion, came as a bombshell into the wages arena. The basis of the study was virtually that of Mr. Justice Higgins; the "reasonable standard of comfort" of the Letters Patent was regarded as meaning the same thing as the 1907 phrase "normal needs of a human being in a civilised community." But when these needs were set out in detail, the cost of meeting them was found to be far above the basic wage fixed by any Australian wages tribunal in 1920. The four sections of household expenditure were defined as follows:—

(1) *Rent.*—A five-roomed house, in good condition, on a fair-sized allotment, in a respectable neighbourhood, and fitted with such obvious—but not always provided—conveniences as bath,

copper, and wash-tubs. For such a house the usual rent in 1920 varied in the capitals between 19*s*. and £1 2*s*.

(2) *Clothing.*—For a man, his wife, and three children, aged 10½, 7, and 3½ years, allowing even for such items as boot repairs, and making deductions for goods bought at "sales" and for garments cut down by the mother for smaller members of the family, the clothing cost was estimated at between £1 6*s*. and £1 9*s*. 2*d*. a week.

(3) *Food.*—On this section, much discussion about Calories took place. The unions made a strong attempt to persuade the Commission to ignore the standards accepted as satisfactory by most European and American dietetic authorities, and to accept a higher standard for Australia. The Commission resisted this persuasion, adopted the generally accepted standard of 3500 Calories as necessary for the average male adult, and regarded the family of five as equal to 3·3 men. The cost of obtaining this food was found to be between £2 3*s*. 1½*d*. and £2 8*s*. 11¼*d*. a week.

(4) *Miscellaneous Items.*—Here again the unions bid high, and endeavoured to secure the inclusion of such items as life insurance, old age annuities, domestic assistance, alcoholic and "soft" beverages, church and charity, tuition in music and art, etc. These were disallowed, but £4 a year for a holiday was admitted, as were also lodge and union dues, medicine, dentist, newspaper, recreation, smoking, barber, school requisites, etc., costing in all, along with fuel, light, and renewals of domestic equipment, between 19*s*. 10*d*. and £1 2*s*. 2½*d*. a week.

Adding up the amounts allowed for each section, the conclusion was reached that the cost of living in November 1920, according to reasonable standards of comfort, ranged from £5 6*s*. 2*d*. in Brisbane to £5 17*s*. in Sydney. The cost of living on the same basis in 1914 would have been from £3 4*s*. 11*d*. to £3 13*s*. 11*d*. Asked how to adjust the basic wage to variations in the cost of living, the Commission recommended that a Bureau of Labour Statistics be established, whose duty it would be to record quarterly all alterations in the prices of the items included in the four sections adopted, and to declare the actual cost of living four times a year upon an average of prices during the four preceding quarters of the year. This declaration would be reported to the Commonwealth Arbitration Court with a view to its being made the basic wage in such manner as parliament might prescribe. The Commission thus urged that the basic wage should be readjusted four times a year instead of annually, or even less frequently,

as has been the custom in the past.[1] It pointed out that annual adjustments had the inequitable result, in a time of rising prices, of paying the worker during each year a wage based on the lower prices of the preceding year, while in a period of falling prices the employer was the victim. Quarterly settlements seemed, therefore, to be most equitable to both parties, and if they were made on the basis of prices during four preceding quarters the effect of any abnormal or seasonal fluctuation would be minimised.

I have described these recommendations as a bombshell. The requirements for a reasonable standard of comfort were higher than had been adopted by any wage-fixing body, federal or state. The figure of £5 16*s*. towered high above any prevailing basic wage, for the New South Wales Board of Trade fixed £4 5*s*. in 1920 for a family of four, the South Australian Court decided on £3 15*s*. in the same year, and in the other states the recognised minimum was about the same. Hence, alongside the "charter of comfort" suggested by the Commission the wages fixed throughout the continent seemed to be a sentence of starvation, a sentence which the wage-earners had been serving patiently and quietly for at least a decade. Not many skilled workers had been getting what was now declared to be necessary as a minimum for all workers with four dependants. Measured by the Commission's standard the Harvester figure of 1907 had been almost 2*s*. a day too low in 1907, and by 1920 the Commonwealth Court award based on the Harvester decision was 6*s*. 5*d*. a day too low. The basic wage throughout the continent had scarcely been enough to meet the reasonable needs of a married couple with one child; for families of more than three persons—and these contained over half the members of wage-earners' families—it had meant privation, privation which was only mitigated where the worker received an addition to the basic wage because of his skill.

Little wonder, therefore, if the whole trade union movement received the Commission's report with great glee. Little wonder, also, if the employers and the Federal government stood aghast. For all parties made the same mistake; they assumed that the Commission had recommended a basic wage of £5 16*s*. for all male

[1] In 1914 Mr. G. S. Beeby was advocating the establishment of a Board of Trade to prescribe a national minimum wage from time to time (ECONOMIC JOURNAL, September 1915, p. 328). In 1918 this Board was instituted; it consisted of a president, deputy-president, and four commissioners, and its work was, *inter alia*, to fix annually the living wage, after public inquiry as to the increase or decrease in the cost of living. South Australia in 1920 established a similar body, called the Board of Industry. Thus a regular annual revision is now provided for in two states.

adult employees, whereas what the Commission had done was only to assert that it cost that amount for a family of five to enjoy a decent standard of life. The Prime Minister immediately asked Mr. Knibbs, the Commonwealth Statistician, whether the annual income of the country would bear a basic wage of £5 16*s*. for all male adult employees, and received the reply that the total annual wealth produced, including that portion which went to profits, would not, if equally divided among the wage-earners, yield the amount required.

At the same time Mr. Hughes addressed six questions to the chairman of the Commission, and in reply Mr. Piddington produced a memorandum which threatens to exceed in importance the report of the Commission itself. This document faced two main questions: (1) What would be the effect on industry of a £5 16*s*. basic wage for all men? (2) How could the finding of the Commission be made effective, presumably without ruining industry? Mr. Piddington's answer to the first question is somewhat hesitating. Assuming that there are about 1,000,000 men in employment, and assuming that they are now getting a basic wage of £4, the cost of raising them all to £5 16*s*. would involve an annual addition of £93,000,000 to the wages bill. The total value of production in the Commonwealth in 1918 was estimated to be £298,000,000, so the addition required would be about 30 per cent. of the total value of production. If this could be passed on to the consumer, the increased prices would quite outstrip the purchasing power of the basic wage; secondary industries would have to increase their prices so much that they would be liable to be ruined by importations unless the tariff was substantially raised. The increased labour cost of primary products for export—wheat, wool, meat, and minerals—could only be passed on to the consumer if world market prices allowed it, and events since November 1920 have shown that world prices will not at present permit an addition to labour cost in the ratio of £4 to £5 16*s*. Did this mean, then, that Australia must abandon her generally accepted doctrine that an industry which could not pay a living wage to its employees had better close its doors? That doctrine had been enunciated many times from the bench in Australia, but it becomes difficult to uphold it if it involves the bankruptcy of many, if not all, of the big staple industries. Is there, then, no way out of the difficulty?

Mr. Piddington finds the solution to the riddle in the endowment of children by the state. His plan rests on two considerations. (1) The basic wage principle ought to imply the receipt

by each worker of an income proportionate to the size of his family. (2) This income must not all be drawn in wages, for, if it were, employers would give preference to single men or those with small families. The basic payment made by the employer must be the same for all his workers; the additions to that payment must be made by the state. The plan suggested is as follows:

The Commission found that the cost of living for a single man —who was presumably saving in order to be able to marry— and for a man and wife was £4 a week. The cost of maintaining a child was 12*s*. Therefore let employers pay all male adults a basic wage of £4, and also pay to the state a tax of 10*s*. 9*d*. weekly for each man employed. This tax would then be spent by the state in paying to wives of wage-earners 12*s*. per child weekly. In this way the man with one child would get £4 from his employer and 12*s*. from the state, a total income of £4 12*s*.; the man with three children would get his £4 plus 36*s*., *i. e.* the Commission's finding of £5 16*s*.; and so on. The employer's liability for 10*s*. 9*d*. per man is based on the calculation that in 1920 the 1,000,000 men receiving wages had in all only 900,000 children dependent on them. Hence if the basic wage for a family of five were given to all men, payment would be made for the maintenance of 3,000,000 children, of whom 2,100,000 did not exist. The Piddington plan would relieve the employers from the burden of keeping this phantom army. It would also involve an addition of only £28,000,000 to the wages bill, instead of the £93,000,000 mentioned above. The latter figure might mean ruin to many industries; the smaller sum might not have such disastrous results. Further, its payment would enable parents to allow their children to remain longer at school; it would remove the pressure of poverty from the declining birth-rate, by making income proportionate to the number of children; it would give a better chance of life to children at birth and make possible the reduction of the infantile mortality rate; it would offer to the European emigrant an additional inducement to choose Australia as his new home.[1]

The idea of child endowment has already been adopted in an inadequate manner by the Federal government. When the report was presented to parliament Mr. Hughes announced that the government refused absolutely to make the basic wage for the

[1] See A. B. Piddington, *The Next Step: A Family Basic Income* (Macmillan, Melbourne, 1921). Mr. Piddington's plan follows largely that enunciated in New South Wales in 1918–19. See E. F. Rathbone, "The New South Wales Scheme for the Grading of Wages according to Family Needs," in ECONOMIC JOURNAL, December 1920, pp. 500 ff.

continent £5 16s., and reserved its decision concerning the Piddington memorandum. Three weeks later it was announced that for employees of the Federal government a basic wage of £4 was approved, and that an endowment of 5s. per child per week would also be paid. Since then the New South Wales government has promised to bring in a bill for endowing mothers to the extent of 6s. a week for all children beyond two—the New South Wales Court fixes the basic wage for man, wife, and two children. Meanwhile the unions are considering what line of action to adopt, and basic wage discussions in the courts and elsewhere are being compelled to face the facts and findings of the Commission. Consideration of the wage which production is capable of bearing brings forward two widely opposed arguments. On the one hand employers declare that the productive capacity of the continent will not permit of the payment even of the Piddington memorandum figures, and point to the slump in the price of wool, wheat, metals, etc., the prevailing unemployment, and the heavy burden of national debt. The unions, on the other hand, challenge the monetary valuation of production. They ask whether the recorded value of £298,000,000 in 1918 represents the value of the products at the point of production, in the wholesale market, over the shop counter, or f.o.b. They point out that if the figure means value at the factory door or the station siding, it must be augmented considerably to include values added by transit, wholesale, retail, and credit services, which might bring it up to possibly £400,000,000 or £450,000,000. Hence the next step seems to be the appointment of another Royal Commission to investigate the total wealth production of the continent.

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THE INTERNAL PURCHASING POWER OF THE GERMAN MARK

Even in countries which have a healthy currency and a sound financial position, so that the foreign exchanges can be kept reasonably stable, the internal and external values of money are not the same. This is still more true of countries where, as a consequence of inflation, the production of goods and the creation of money are no longer related to one another. In such cases the internal value of money fluctuates as well as the exchanges, and as a rule both fluctuations are in the same direction, because of the influence which the internal value of money and the foreign exchanges exert upon one another; but the factors which contribute to this result are too numerous and often too various to admit of exactly proportionate variations in the exchanges and the internal value of money.

Under existing conditions no one would any longer seriously maintain that the question of gold reserves is to-day a dominant consideration in regard either to the exchange value or to the internal value of the German mark—or indeed of most other European currencies. If gold reserves were the determining factor, the mark would be worth 1⅓ gold pfennigs, and, as measured by reference to the old system of a 33⅓ per cent. reserve, the mark would still only be worth four gold pfennigs. But the present value of the mark in terms of gold dollars has very little to do with the question of the cover held against note issues. It is really determined by the impossibility of establishing an equilibrium in German finance and the consequent probability of further depreciation of the currency.

A common basis for the internal value of money and its value in foreign exchange must be sought on the one hand in the relation between the production of goods and the volume of the circulation, and on the other in the balance of trade or indebtedness. And just as changes in the value of money in regard to its external and internal purchasing power should not be ascribed to the

same influences, so too the influence of these factors on the prices of different commodities, if we consider only the general level of internal prices, is not uniform in its effects. In other words, a change in the value of money operates in varying degrees on various commodities. We must also realise this further point, that money has no homogeneous internal value, and that the value of money is, for example, different in regard to the cost of living from what it is in regard to capital investments. And leaving aside the question of capital and considering only the cost of living, we find that the purchasing power of money is also different for the different classes of society, because the consumption of different social strata is differently constituted. It is true that in countries that have indulged in monetary inflation there has been to some extent a levelling of the standard of life in the middle and working classes, partly on account of the rationing of important necessaries of life by the State (food, rent, and occasionally even clothing), but still more on account of the levelling of incomes. It is also true that the remuneration of skilled and unskilled labour has shown a strong tendency to be assimilated, and this tendency is in part to be ascribed to technical progress which has resulted in greater vagueness in the dividing line between the two categories. Indeed it has often happened that the middle and working classes have exchanged positions, and that, while the working class family containing several wage earners has moved upwards into the middle class, a great part of those who were formerly members of the middle class and whose economic advantage was in part dependent on a moderate income from investments, has been reduced to the condition of the proletariat, owing to the reduction in the purchasing power of income in the form of interest and still more because the income of this class of people has shown relatively the least adaptation to the change in the value of money. This type includes more especially the class of officials of the middle and higher grades and of brain workers—a fact which is of some importance from the point of view of cultural development. Their income, which used to be far above that of the manual labourer, is now scarcely above it at all, and among brain workers it is frequently even below.

This levelling of incomes makes it necessary, so far as Germany is concerned, to make some considerable allowances before applying to the vast majority of the population such index numbers of the cost of living as are calculated on the basis of the standard of life in a working class family.

Let us now consider the different price index numbers which have been made for Germany.

(1) *The index of Richard Calwer* :—

	Marks.		Marks.
January 1914	25·57	January 1921	381·70
1915	29·65	February ,,	359·56
1916	41·26	March ,,	356·19
1917	53·67	April ,,	351·27
1918	56·50	May ,,	353·14
1919	63·75	June ,,	351·55
1920	139·65		

This represents the weekly food requirements of a family of four, on the assumption that such a family requires three times the pre-war ration of an able-bodied seaman in the navy. The average of prices in about two hundred different localities in Germany has been taken. If we call the ration Q, the general level of prices before the war P, and the average of post-war prices p, the formula which gives Calwer's index is $100 \frac{Qp}{QP}$. This is the only index which contains no substitute for any of the food-stuffs contained in the pre-war family budget. It consequently shows the greatest percentage increase. Unfortunately it is confined to food-stuffs only, and is therefore to some extent an incomplete index.

(2) *The index of the cost of living compiled by the Federal Statistical Office* :—

1913–1914 average = 100

February 1920	623	November 1920	872
March ,, ...	741	December ,,	916
April ,, ...	836	January 1921	924
May ,, ...	876	February	901
June ,, ...	842	March	901
July ,, ...	842	April	894
August ,, ...	795	May	880
September ,, ...	777	June	896
October ,, ...	827		

The statistical office figure comprises food, rent, heating and light, but the principal omission is clothing. It is based upon a scientifically established budget which represents the *estimated* post-war standard of living, so that potatoes, bread, and vegetables play by far the most important part in it.

Proportionate Distribution of the Constituents of the Statistical Office Index, including the most important necessities of life required monthly by a family of five, consisting of two adults and three children aged twelve, seven, and one and a half, as used for the calculation of the index in different communes :—

Necessaries.	Quantities.	Necessaries.	Quantities.
Rye Bread	47,000 gr.	Eggs	10 gr.
Food-stuffs (Flour, oats, vermicelli, dried vegetables, rice and so on)	15,000	Unskimmed milk ...	28 litres.
		Fuel :—	
		Hard coal	3 cwt.
		or Lignite	5 „
Potatoes ...	70,000	„ Lignite briquettes	4 „
Vegetables ...	30,000	„ Peat	6 „
Meat	1,500	„ Firewood ...	5 „
Shell-fish ...	3,000	„ Gas for cooking	40 cb.m
Bacon	1,500	Light :—	
Fat	4,000	Gas	15 „
Salted Herrings ...	1,500	„ electricity ...	5 „
Margarine (Brotaufstrich)	4,000	„ candles	1,000 gr.
		„ Carbide	4,000 „
Cooking or preserving apples	8,000	„ Oil	7 litres
Sugar	3,500	House of two rooms and kitchen ...	monthly rent.

The formula for the Statistical Office index reads as follows :—

$100 \frac{qp}{qP}$ where q represents a post-war ration.

Calwer's index and the Statistical Office index are, roughly speaking, the two extremes, so far as the food ration is concerned. The tendency of the Statistical Office index is exaggerated still further for the month of June 1921 by the fact that the price for *new* potatoes is not recognised at all.

(3) *The index figure compiled by M. Elsas to represent the cost of living for a family of four in Frankfurt a. Main, Berlin, and the most important industrial cities of Germany* :—

January 1st, 1914... ...	26·5	July 1st 1920... ...	277
April 1st, 1919... ...	100	September 1st, „	281
September 1st, „	116	November 1st, „	316
November 1st, „	125	January 1st, 1921... ...	311
January 1st, 1920... ...	170	March 1st, „	297
March 1st, „	198	May 1st, „	280
May 1st, „	289	July 1st, „	293

This index comprises food, clothing, rent, heat, light, and various miscellanea, and is therefore similar in its composition to the index number of the *Labour Gazette*. So far as food is concerned the components are those of pre-war times, with few exceptions (*e. g.* the substitution of margarine for butter). The same applies to the other constituents with the exception of clothing, for which no pre-war standard could be given. The formula in this case is :—

$$100 \frac{(9/10^{*}Q_1 + 1/10^{*}q_1) \,.\, p_1 + q_2 \,.\, p_2 + Q_3 \,.\, p_3 + Q_4 \,.\, p_4 + Q_5 \,.\, p_5}{(9/10^{*}Q_1 + 1/10^{*}q_1) \,.\, P_1 + q_2 \,.\, P_2 + Q_3 \,.\, P_3 + Q_4 \,.\, P_4 + Q_5 \,.\, P_5}$$

Q_1 = food. Q_2 = clothing. Q_3 = rent. Q_4 = heat and light. Q_5 = miscellaneous.

* Estimated.

In this case a compromise has been effected between the post-war and the pre-war standard, Q representing the pre-war quantities, and q the quantities to-day. The standard nevertheless approximates more nearly to pre-war than to post-war conditions. It may be estimated that the standard of living assumed in this case is scarcely less than 90 per cent. of the 1914 standard.

(4) *Wholesale index of the "Frankfurter Zeitung."*

Peace-time index	9·23	November 1st, 1920	152
January 1st, 1920	100	December 1st, ,,	153
February 1st, ,,	131	January 8th, 1921	143
March 1st, ,,	147	February 5th ,,	136
April 1st, ,,	146	March 5th, ,,	131
May 1st. ,,	156	April 2nd, ,,	130
June 1st, ,,	134	May 7th, ,,	131·8
July 1st ,,	136	June 4th, ,,	127
August 1st, ,,	141	July 2nd, ,,	135·4
September 1st. ,,	144	August 6th, ,,	156
October 1st, ,,	146		

The wholesale price index covers seventy-seven different commodities. In contradistinction to the other index numbers it is *unweighted*. This number is particularly important in connection with changes to be anticipated in the cost of living, because wholesale prices notoriously anticipate the movements of retail prices and consequently may be taken as to some extent representing the future developments of the cost of living.

Apart from the fact that it is unweighted, this index has the further failing, which incidentally it shares with the wholesale price index numbers in other countries, that it omits the prices of land and buildings.

(5) *The cost of food requirements as compiled by the Statistical Office in Berlin (Silbergleit).*

The weekly cost of food per adult:—

	Marks.		Marks.
Middle of June—Middle of August 1919	26·55	August 1920	57·20
November ,,	52·31	September ,,	57·48
December ,,	58·35	October ,,	59·90
January 1920	62·80	November ,,	60·25
February ,,	63·04	December ,,	61·49
March ,,	67·74	January 1921	61·23
April ,,	71·43	February ,,	58·09
May ,,	70·12	March ,,	56·15
June ,,	67·76	April ,,	55·46
July ,,	62·35	May ,,	54·85
		June ,,	56·85

This calculation is based on a requirement of 3,000 calories per adult per day. For the month of June 1921 food requirements are constituted as follows:—

Weekly requirements of a full-grown man :—

	Altogether.	Weight in grammes distributed between— Albumen.	Fat.	Carbo-Hydr.	Calories. per 100 gr.	For the quantity given in column 1.
	(1)	(2)	(3)	(4)	(5)	(6)
Bread, etc.	1,900	114	10	950	2,500	4,750
	125	9	—	90	3,240	405
Sugar...	408	—	—	408	3,910	1,595
Beef (fresh)	250	49	18	—	1,600	400
Margarine	350	—	273	—	7,300	2,555
Foreign Bacon ...	75	—	60	—	8,000	600
Oatmeal	500	70	35	325	3,400	1,700
One Egg	50	7	5	—	1,500	75
Vegetables	4,000	72	—	180	287	1,148
Fish (fresh and dried)	500	85	20	—	1,069	535
Dried Vegetables ...	1,000	220	—	580	3,300	3,300
Rice	500	30	2	374	3,300	1,650
Potatoes	3,500	60	—	700	700	2,450
Coffee substitute ...	125	—	—	—	—	—
Weekly	—	716	423	3,607	—	21,163
Viz. daily	—	102	60	515	—	3,023

For a woman Silbergleit reckons four-fifths of the calories required for a man; for a child from seven to twelve years one-half.

Bread, vegetables and potatoes together are by far the greatest part of the food requirements given above. The quantities included here for meat and eggs (viz. half-pound of meat and one egg per head per week, or, for a family of three, two eggs and one pound of meat weekly) are taken as corresponding to the standard of living at the present day, but need to be carefully borne in mind if these figures are used for purposes of comparison.

The index numbers given above vary, and indeed necessarily vary, in the results which they establish because they proceed from different bases. Which of them can serve as a foundation for calculating the internal value of money?

In an article published in the *Economist* of June 25th, 1921, the Berlin correspondent of this periodical answered the question for himself as follows: He took the index numbers of the Federal Statistical Office and used them for establishing the purchasing power of money. He proceeded to set the rise in the index numbers against the increase in wages, and in this way he arrived

at the conclusion that the increase in wages has not only kept pace with the rise in the cost of living but has far outstripped it. Moreover, he compares the index number of the Statistical Office for May 1921, which was 880, with the wages index of the *Frankfurter Zeitung*, which was 1132. Result: a rise in wages 30 per cent. greater than the rise in the cost of living. Conclusion: that the real value of wages is 30 per cent. higher than it was before the war.

As regards the index number of the Federal Statistical Office, it must be regarded merely as an expression of the percentage rise in the cost of living according to an estimated standard of life adapted to present-day conditions and intended to apply to the great majority of people; but the standard of life to-day is entirely determined by the level of income or, in other words, of wages. The standard of life assumed by the Statistical Office is therefore based upon an imaginary budget which, in the opinion of the official statisticians, corresponds to the general level of present-day incomes.

If the statistical office has made a correct estimate in regard to this budget, then income (wages) = expenditure; for the standard of living on which the official index number is based, is only reached on the assumption that with post-war wages nothing more than this primitive standard, which falls short of the pre-war standard of life, can be attained.

Now it is of course conceivable that although at the beginning of 1920 the cost of living, as assumed by the Statistical Office, corresponded to the general level of wages, the rise of wages since that time has been far greater than the cost of maintaining that standard of living. The correspondent of the *Economist* does indeed maintain that, between January 1920 and 1921, the cost of living in Germany rose 50 per cent. while nominal wages rose 120 per cent. Even if this were the case, it would only go to show that the standard of living in 1921 had improved in comparison with that primitive standard which the Statistical Office at some former date believed to correspond with the general level of wages at that time. Such an adaptation of the standard of living to a relatively higher level of wages must at any rate be assumed so long as the standard of life still falls far short of that which prevailed in 1914. That it still does fall short is too obvious to require demonstration. Statistics about the consumption of meat, butter, cotton, and fuel per head of the population, not to mention housing, would certainly give results which would show a terrible shrinkage in the figures as compared with pre-war

times. These considerations might have led the Berlin correspondent of the *Economist* to the conclusion that the level of wages must necessarily vary in direct proportion with a family budget adapted to the level of wages.

If in the example under consideration the increase in wages was greater than the rise in the cost of living, then it simply follows that the assumption on which these statistics are based is no longer true, and that the budget which was taken as a basis no longer corresponds, or perhaps never did correspond, with the actual standard of living. In other words, the figures of the Statistical Office can no longer be regarded as an expression of the changes in the cost of living. That is more or less true of any statistics which are based upon a standard of life which differs from the actually prevailing standard, because a budget drawn up to suit an estimated standard of life should more properly be regarded as an expression of the estimated level of incomes.

In the case which has been quoted the reasoning is therefore fallacious. It goes without saying that there is not the smallest ground for calling in question the good faith of the author. The intention has only been to demonstrate here that, by arguing from the cost of living to the internal value of money, false conclusions are apt to be drawn if the statistical material adduced in support of the argument is based upon a foundation of hypothesis. It should moreover not be forgotten that the Statistical Office index is incomplete, since clothing is not taken into consideration. Moreover the wage index of the *Frankfurter Zeitung* should have been tested, in order to discover whether it can fairly be used without reservations for the purposes of comparison. Below the title: "Wages Before and After the War"[1] there is a note which reads as follows:—

"The categories here examined appear to show an eleven-and-a-half-fold rise in time wages. It would, however, be a mistake to conclude from this comparison that there has been a corresponding rise in the level of real wages. The actual rise does not justify so high a quotient. The chief reason for this is to be found in the reduction of average working hours from ten to eight; but a contributory cause is the irregularity of employment resulting from interruptions in the steady flow of sales and from economic crises affecting the chief industries. The majority of the workpeople have suffered appreciable loss of wages from these causes."

[1] Index figures of the *Frankfurter Zeitung*, by Ernest Khan.

Summary.

Index number.		Month.	Approximate rise.
Calwer.	Food-stuffs only.	June 1921/Jan. 1st, 1912.	14 fold.
Fed. Stat. Office.	The most important necessaries, but not including clothes.	June 1921/1913–14.	9 ,,
Elsas.	All important necessaries.	July 1st, 1921/Jan. 1st, 1914.	11 ,,
Silbergleit.	Food-stuffs only.	July 1st, 1921/July–Aug. 1919	(2) ,,
Wholesale index of the *Frankfurter Zeitung*.	All important necessaries.	July 1st, 1921/Peace time.	15 ,,

If we proceed on the assumption that the pre-war standard of living, without any modification, is the only basis which should be taken for calculating changes in the value of money, with a view to arriving at the difference in the cost of living, then none of the index numbers quoted above can be made use of, because not one of them (except Calwer's figure) takes the pre-war standard of life as its basis without modification. Calwer's figure, which only relates to food, would, if it were taken as an expression of the cost of living in general (*pars pro toto*), lead to a considerable exaggeration of the rise which has taken place. That would be so if only because rent, which is kept artificially low and consequently tends to reduce the total figure quite appreciably, is not taken into account. Silbergleit's index, which does not go back to pre-war times, can of course have no bearing on a calculation of the value of money, quite apart from any other objections that there may be to it. The index number of wholesale prices, in so far as it is at all permissible to apply it to the cost of living, also leads to exaggeration, because it does not contain rent, and further because the tendency of wages to force down the level of prices does not find adequate expression in the cost of raw materials.

But if it is permissible to substitute one kind of food-stuff for another (for example, in the case of Germany, to substitute lard and margarine for butter) in cases where the supply of some particular article is so scanty that the labouring and middle classes—which is to say the greater part of the population—can scarcely afford it any more, then the figure calculated by me (showing an eleven-fold increase) might be taken as fairly representing the present level of the cost of living. That is to say my

figure would be the inverse expression of the internal value of money, viz.: $\frac{1}{11} = 9$ pfennigs for one mark.

Taking into consideration that the quantities on which my index number is based are about 90 per cent. of those before the war, one may say that the internal value of money works out at $\frac{1}{12 \cdot 2} = 8 \cdot 2$ pfennigs.

As wages (according to the wage-index of the *Frankfurter Zeitung*) have risen to eleven-and-one-third times their former figure (the real wage-index is somewhat lower because hours of work have been reduced since pre-war days), it follows that they have risen almost exactly as high as the index number calculated by me. This fact would seem to indicate that the standard of life which I have taken as a basis is to some extent a practicable one. Moreover, the wages of a labourer need not in all cases correspond exactly with his total expenditure; in fact it is notorious that an unduly low wage earned by the head of a family is generally supplemented through an increase in the work done by women, and (where this is permissible) by children.

The figure of the Federal Statistical Office goes to the opposite extreme as compared with Calwer's index. It completely abandons the basis of a pre-war standard of living. But if we proceed on the assumption that index numbers are essentially a means of arriving at an average, and take the arithmetic mean between these two extremes (extremes: Calwer 14-fold, Statistical Office 9-fold, arithmetic mean = $11\frac{1}{2}$-fold), we arrive at an internal value of money of $\frac{1}{11 \cdot 5} = 8 \cdot 7$ pfennigs. The relatively close correspondence between this result for the internal value of money and my own index figure may be purely accidental.

No attempt will be made here to go into the question whether in calculating an index number it is admissible to include substitutes which are actually consumed to-day in place of articles which, though formerly in use, have now become too expensive, or are not obtainable at all. It will suffice to say that this question is not likely to be solved in a manner which will satisfy all parties. It is unquestionable that index numbers of the cost of living which are to be used for purposes of comparison should at least rest upon some sort of common basis. But that need not perhaps prevent us, in cases where an article has become so scarce that its price rises out of all relation to the general price level, from substituting for it some other article of approximately

corresponding value which has replaced it in general use and which gives almost equal satisfaction.

If this small concession is refused, it becomes altogether impossible to use index numbers as a measure of the rise in prices when the times are exceptional and prices suffer revolutionary changes. It is only necessary to consider the limiting case of an article which becomes so scarce that it is practically unobtainable. Its price rises in consequence to infinity, and therefore the total index also becomes infinitely great.[1]

Finally, it is worth considering whether a distinction ought not perhaps to be made in regard to the uses to which an index number is put. When the internal value of money is to be calculated, it might be well to require a more rigorous adherence to the originally selected commodities. When it is a question of determining a sliding scale for wages it may be reasonable to allow certain concessions in the way of substitution.

It was probably such considerations as these—that an unchanged standard of life leads to exaggeration—which recently induced Richard Calwer to calculate, in addition to an index for food-stuffs based on the pre-war standard of living, a second index which takes as a basis of comparison the "poorest classes in Germany" of fifty to seventy years ago. For a family of five, equal to three adults, with an allowance therefore of three times the single ration, the following food-stuffs are included per week:—

1,000 grams of pork; 500 grams of lard; 300 grams of rice; 300 grams of flour; 7,500 grams of bread; 25,000 grams of potatoes.

The index for the whole of Germany, representing the "small ration," was found to be 100·02 marks for the month of May 1921 and 107·06 for June.

To assume such a primitive manner of life for a highly developed industrial population is to go far beyond the mark. Calwer therefore ends by working out an average ration, which is the arithmetic mean between the large and the small ration.

All these attempts show that the question of the compilation of index numbers is in a state of flux. As so often happens, it seems as if in arriving at an index number, what appears to be absolute impartiality (viz. an immutable basis) may really lead to biased conclusions. If that is so, it follows that a good statistical method of dealing with the standard of living cannot dispense with a certain subjectivity in the process of compilation and calculation. In other words, it is impossible to exclude

[1] Bowley: The Measurement of Changes in the Cost of Living (*Journal of the Royal Statistical Society*, Vol. LXXXII, Part III).

attempts at diagnosis, and a purely mechanical method of arriving at index numbers is to be avoided.

Date.	Sterling Exchange on Berlin to £.	Per cent. of Par.	The *Labour Gazette* Index No. Per cent. of Pre-war.	German External Prices Col. 2× Col. 3.	Per cent. of Par.	German Internal Prices (Elsas).
	(1)	(2)	(3)	(4)	(5)	(6)
Pre-war	20·43	100	100	100	100	26·5
January 1920 ...	187·5	918	225	2065	642	170
March ,, ...	338·5	1657	230	3811	747	198
May ,, ...	220	1077	241	2596	1091	289
July ,, ...	151	739	252	1862	1045	277
September ,, ...	176	861	261	2247	1060	281
November ,, ...	267	1307	276	3607	1192	316
January 1921 ...	262·75	1286	265	3408	1174	311
March ,, ...	240·5	1177	241	2837	1121	297
May ,, ...	261	1278	228	2914	1057	280
July ,, ...	280	1370	219	3000	1106	293

The above table is drawn up in a form similar to that of a table published in the *Manchester Guardian Commercial* of June 2nd, 1921, with this modification, that the figures in columns 3, 4, 5 and 6 are calculated with reference to the cost of living in England and Germany, and not with reference to wholesale prices. These figures establish a relation between the internal and external value of money at the beginning of July which works out at $\frac{1}{1106} : \frac{1}{1370} = 5 : 4$, taking the rate of exchange on London as the measure of external value. As regards the cost of living, the relation between the internal and external value of money (external = in London) is as $\frac{1}{1106} : \frac{1}{3000} = 30 : 11 = 100 : 37$. This means that the paper marks in which the German workman receives his wages would, if converted into sterling, buy in England only 37 per cent. of the working class necessities which they buy in Germany.

The public finances of Germany require that for the future, if equilibrium is ever to be restored at all, subsidies to bring down the general level of prices should be left out of account. They also require that the charges for the services rendered by State monopolies, such as Railways and Post Office, should be raised to the full amounts which would correspond to the depreciated value of money. Moreover, future developments must be in the direction of abolishing the State control of trade, in so far as it still exists (*e. g.* in bread and sugar), and restoring freedom. It is not very helpful to enquire at this date whether the system

of control might have been avoided altogether. In the case of bread it was certainly unavoidable; and even if on economic grounds control might have been dispensed with (especially as rationing was interfered with by illegal trading and was indeed rendered practically nugatory, for example, in the case of meat), the question still remains whether for reasons of internal politics alone it would not have been necessary to introduce restrictions.

There will be more difficulty in bringing rents into their proper relation with monetary conditions. Rents at the present time absorb no more than 3½ per cent. of total expenditure as against 20 per cent. before the war. Yet it would be over-hasty to conclude that the State was actuated entirely by demagogic motives when it prevented the assimilation of rents to the fallen value of money. At the very least there was something to be said for the policy so long as there was any hope that the mark would again approach its former value. The intention was to avoid an increase in ground rents, and it was also feared that the burden of mortgages, if once these had been brought into conformity with the new value of money, would make an eventual reduction in rents impossible. But when the hope of restoring the original value of the mark had to be recognised as Utopian, the rise in rents should have been allowed a greater scope. If such a course had been determined upon in good time, there would not have been such a scarcity of accommodation in the great towns as there is to-day. In present conditions there is no inducement whatever for capital to be employed in building. And in cases where the fact that house-room is by far the cheapest luxury has led to a certain extravagance in this respect, a tendency of rents to conform to the value of money would have acted as a deterrent. In any event it will be necessary to reckon with a considerable rise in house rents (up to the present, an increase of a third to a half on pre-war rents has been permitted), because otherwise the danger of houses being allowed to fall to pieces will become very real. For some time past, owners of house property have not been able to afford the expense of necessary repairs.

Coal will also increase further in price. The conditions of the Versailles Treaty in regard to the valuation of the coal deliveries to the Allies are in themselves enough to assure this result. Next, we must expect a further tightening of the screw of taxation. In particular, the turnover tax will have to be raised again. All these factors will contribute to an appreciable rise

in the cost of living, and consequently to the prospect of a further reduction in the internal value of money. This will result in another general increase in wages.

Yet it is impossible to make even an approximate forecast of future developments of the internal value of money. For in making any such forecast we have to deal with several unknown quantities. First of all, much depends upon the future of world market prices, especially for cotton, copper and wheat. It is, for example, impossible to determine how far the price of cotton will continue to fall if no success attends the efforts to give greater purchasing capacity to the States of Europe.

Secondly, it is equally impossible to predict the future of the foreign exchanges. The mark has to a great extent become a plaything in foreign countries. It has been estimated that thirty to forty milliards of marks are held abroad in notes or in mark credits. Nor is it possible to tell what further quantities of marks will have to be disposed of abroad in order to pay the periodical instalments of the Indemnity; even supposing that it proves possible to find a perpetually renewed demand for the marks that have to be sold.

Thirdly, prices to-day include a relatively large return to the *entrepreneur*. It is not necessary to enumerate here all the factors which are favourable to the making of profit. It will be sufficient to refer to the exceptionally favourable balance sheets of most joint stock companies. It is quite possible that, perhaps through an accentuation of internal competition, owing to a falling off in the demand for export, influences may come into play in this direction which will tend to counteract a further rise in the general level of prices.

The function of science is to expose the naked facts. It is for politicians to decide how to resist developments which are judged to be economically undesirable. Wages in Germany are exceptionally low in comparison with wages in other industrial countries, and the question arises whether the wage-level (that is to say the standard of living) of working classes abroad will be reduced towards the low standard prevailing in Germany, or whether the opposite tendency will prevail, and the wages and the standard of life of the German working classes will conform to those of other industrial countries.

One of these two alternatives will have to be chosen by economic policy if the world is to return to normal productivity and if frontiers are not to be converted by prohibitive tariffs into insuperable barriers against the products of neighbouring

countries. For in countries which have reached a similar stage of industrial development, wages will tend to establish themselves (even if only gradually) at similar levels. It would be a pity to forget once again that economic, no less than physical, laws do not admit of being brushed aside.

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THE TAXABLE-CAPACITY OF IRELAND[1]

The problem of the taxable-capacity of Ireland in relation to that of Great Britain, at one time a very burning question, has not been prominently before us for some years. It bids fair, however, to assume in the near future even more than its old importance and, perhaps, something of its old complexity. The Government of Ireland Act, 1920, has provided for a contribution to Imperial liabilities and expenditure as a first charge upon Irish revenues, and the amount of such contribution has to be determined by the Joint Exchequer Board, according to a proportion to be fixed every five years. No principles whatever are laid down upon which the matter is to be settled, but the amount is to be such "as the Board may, having regard to the relative taxable-capacity of Ireland and the United Kingdom, determine to be just." Now the classic locus for the discussion of the various matters involved in measuring taxable-capacity is the Financial Relations Commission's Report of 1894–96. It may be said at once that the technicalities of measurement, and what one might call the "statistical minutiæ" of the question, received far more attention than the fundamental principles involved in what is really meant by the "taxable-capacity" of a country. The whole subject tends to become lost in a mass of technical detail, but this may be reduced into something like manageable order if the principles involved are first clearly apprehended. Professor C. H. Oldham, in a paper read to the Statistical and Social Inquiry Society of Ireland, and since published, has recently made an important and courageous contribution to this subject. His method is to assume, as far as possible, that the Financial Relations Commission has *settled* the ways in which relative taxable-capacity should be measured, and then, by an examination of the relevant figures, to arrive at the present position. He comes to the important conclusions that:

[1] Paper read before Section F of the British Association at Edinburgh, September, 1921.

(*a*) the taxable-capacity of Ireland relatively to Great Britain is now 1 : 31 and relatively to the United Kingdom 1 : 32, and that

(*b*) of the £50,615,000 contributed to revenue in 1919–20 by Ireland (the Treasury estimate) a sum equal to £18,516,000 was "over-taxation."

In what follows we propose to direct attention mainly to an examination of the methods and figures involved in Professor Oldham's treatment of the subject.

At the outset, let us take the broad considerations of principle:

(1) What are we measuring? That is to say, with what in a quantitative aspect, or aspect of area, are we dealing? Do we mean by capacity, the capacity of the inhabitants of a country, no matter where their incomes may be derived, or do we mean capacity judged by the produce of a country, and what is made within its borders, no matter where it may be enjoyed? Throughout the whole literature on this subject there is the utmost confusion on this point, and the argument switches from one point of view to another in the most disconcerting way. I refer to the rival taxing principle in a recent book[1] in the following terms:

"If you want to see how deep rooted is the instinct to tax on two principles, imagine the feelings of an Irish Government imposing a separate income tax. Would they refrain from taxing a property in Sligo merely because the income from it went abroad? One imagines that they would feel it was specially chargeable. But suppose that a millionaire settles down in Sligo, who draws all his income from England, would they decide to exempt him?"

If we decide, as I think we must, that the most logical test is that of the total resources of the residents of the country, then we have a clear line to follow, provided that, when we come to apply our knowledge to the relative contributions to a central fund, we can be sure that the contributions are really made and finally borne by the same body of people whose capacity we have been ascertaining. For example, if by the test of relative capacity a certain contribution had been determined, it would be idle if, in securing that contribution, it was obtained by a tax which was shifted in actual fact to the other contributor to the general fund.

Professor Oldham seems to give complete recognition to this

[1] *Fundamental Principles of Taxation*, p. 118.

principle as the one at which he is aiming when he says, "In the absence of any definition of which taxable-capacity we are to measure, it would be natural to fall back on the principle that it is persons, not countries, that pay taxation." And the first part of his treatment seems to be aimed at arriving at conclusions on that basis, but in the latter part he says, "taxable-capacity ought to be measured with strict regard to the relative taxed income that was *produced* and enjoyed in each country." This seems to be a reversion to the old confusion between production and consumption. If we will agree that the ownership of an Irish farm by an Englishman, or the ownership of all the shares in a Belfast Company by Londoners, is an addition to British capacity, and a deduction from Irish capacity, an important step will have been gained. But as a consistent corollary we must also agree that all holdings of English property and shares by an Irishman in Ireland must be added to the Irish capacity.

(2) The second principle with which we have to deal is as follows. Having obtained the aggregate of our income in each country, which we might call the "*area* of measurement," does not taxable-capacity connote also a *depth* of measurement in a qualitative sense? If two countries have each a thousand millions of taxable income, their capacity is not necessarily the same if the average income per inhabitant in the one is £100, and in the other is £1,000. Further, even if the average in both is £1,000, the capacity for paying taxation may be different according to the "spread" or distribution, and if the average of £1,000 is made up of a number of very rich men, and a balancing number of very poor ones, the capacity to pay taxes is greater than if the distribution is more even and there are neither very rich nor very poor men. This is a corollary from the admission of the justice of progressive taxation to secure equality of sacrifice. Moreover, "taxable ability" now takes into account family obligations, with allowances for wives and children and dependent relatives. It also distinguishes the class of income—whether from investments or from personal toil.

The mere determination, therefore, of the total *amount* of income is not enough without some consideration of its *quality*. Now, as the amount of duty actually paid is intended to be a faithful representation of relative ability between individuals, it also sums up, so to speak, all differences of quality as well as of quantity, and if the tax systems of two countries are identical and everything is raised by an income tax, the total produce

or aggregate sums paid by the respective groups of inhabitants would represent the ratio for which we seek. This is what I mean when in *British Incomes and Property* I state, "There is a good deal to be said for the net produce by itself as a test of capacity," for this alone reduces to a common denominator both quality and quantity of aggregate power.

(3) Then the third point that we have to determine, when considering periods of time, is whether our measure, or foot-rule, or barometer, or whatever you like to call it, has changed. It is not enough to say that if it has changed it will be the same for both countries that are being compared, for it may have changed in such a way as to give greater prominence to certain features in which one country has a more abundant measure. For example, we might say that an examination in scripture knowledge between the inhabitants of two countries shows them to be proficient in a certain ratio to each other. Now let us alter the character of the test so that the examination has far more questions relating to the Old Testament than hitherto. It may be said that this would be quite fair to both sides, and the ratio should remain the same, but if one country has amongst its inhabitants a far greater proportion of Jews, who may be presumed to have relatively a greater knowledge of the Old Testament than the New, it is quite clear that the revised scheme will no longer bring out a relationship similar to the original. So, in like manner, if more income receivers in one country are married, and if the families are larger than in the other country, a tax system which makes special allowance for such features will bring out a different relative capacity from one that does not.

The Financial Relations Commission, as I have said, was none too certain of its first principle of capacity being that of inhabitants. As I have remarked in *British Incomes and Property*, "all the Commissioners agreed as a principle, though not in detail, that taxable-capacity measured along the lines of income is really referable to an aggregate of individual capacity, but they were not at all clear as to the point to which this really led." It cuts out of consideration at once all the talk about absenteeism, and whether tenants pay larger rents relatively to the total produce in Ireland than in England. But the really vital point to notice here is that the whole conception of taxable-capacity has altered since 1894. We had then a flat rate of tax with just an exemption minimum. Advocates of progressive taxation were still cranks! The idea was gaining ground upon

the Continent through the German examples, but was long resisted in France. In England we received it very tentatively. Sir Robert Giffen was quite clear on the Commission that it was inexpedient to apply it. Taxation was not, in fact, progressive, and that, of course, was a sufficient answer. Therefore, the Financial Relations Commission, even if they had successfully measured the area, viz. the aggregate of the incomes of individuals resident in each country, would have stopped there, and treated each pound of such aggregates as of equal value whether it belonged to millionaires or working men, to bachelors or to married men, to idle investors or to hard workers, and, in fact, they would have ignored all the differentiæ that are recognised to-day.

Summing up the situation in 1896, Professor Bastable declared in favour of simple total income, and objected to attempts to ascertain "free income" as impracticable: "the difficulties inherent in any attempt to refine on or manipulate the total income in order to get a measure of ability, seem to indicate the convenience of keeping to the plain rule of taxation according to income."[1] These statistical difficulties have, in the following twenty-five years, been largely resolved by the development of the tax system itself, of which the modified "net assessment" is only a partial reflex.

So when Professor Oldham asks us to assume the Financial Relations Commission to have settled the principles, he is asking a great deal. But he does not quite carry out even his own assumption, for he adopts a method of measurement which, as I have indicated above, has continually and progressively recognised the second principle of quality or depth. Professor Oldham rightly says that the Financial Relations Commission stood their result on two legs, viz. the net assessment of property for death duties and the net assessment of incomes for income tax. He says that his aim is to calculate the present relative taxable-capacity of Ireland when the methods of 1896 are applied to the data of the present time. The difficulty is that as the data of the present time are rather different in kind and quality from those of 1894, the results are not strictly comparable. In his first table he shows that the net assessment of properties paying Estate Duty gives a ratio of about 1 : 17 in 1894–96, which rose to practically 1 : 20 in 1899, and remained at about that figure down to 1914–15. He then deals in his second table with the net assessment of incomes for income tax which he

[1] Economic Journal VI, p. 200.

says is the best of all statistical measures of relative taxable-capacity, and would be perfect if the assessment were always made on similar lines for both countries. In 1894–95 such respective Net Assessments charged with the payment of income tax were as 1 : 20. The ratio rose by 1899 to 1 : 24; in 1903 it was 1 : 30, and by 1918–19 it was practically 1 : 40.[1]

Now, of course, the natural inference from this Table II is that the capacity of Ireland has been rapidly shrinking with the progress of years. This may, indeed, have been the case, but the table does not clearly prove it, for the "net assessment" has been continually altering in character in a way that may give greater recognition to certain special features in Ireland. There are, first of all, one or two technical points. Income on which "tax is received" is not the same as the old official figure of net assessments, but the effect of this on the ratio is not great, as the difference between the two figures is fairly constant for both countries. Professor Oldham's other points, and the way he builds up his net assessment by the division for Schedule C, may be accepted as giving an approximately correct result.

As between 1894 and the present time, the *quality* of taxable-capacity has been recognised by the allowance of abatements, and in this sense the latter ratio is a more correct one than the earlier; but if the earlier one had been calculated on the same system of taxation, it might have given a result much more like the present one. But abatements are only a device for graduating the tax paid, and it seems illogical to stop short with that particular amount of graduation which is done by manipulating the net assessment, and not to deal also with the graduation which is done by the rate of duty, and with which we had by 1918 become very familiar. What we are really getting towards, as will be seen, is the total *tax paid* as a measure of taxable-capacity, the net assessment being a sort of halfway house between the two extremes, with no special virtue or fixity. Then, again, we now have all the various "subjective" allowances for wife and children which did not then exist.

It will be clear, therefore, that the superficial appearance of a shrinkage of capacity from 1 : 20 to 1 : 40 might, in fact,

[1] Some errors seem to have crept into Professor Oldham's figures. In the year 1910 the net assessment for Great Britain should be 2,014 millions instead of 2,114 millions, altering the ratio from 1 : 33·81 to 1 : 32·2. For the year 1911–12 the assessment is 2,042 millions instead of 2,142, altering the ratio from 1 : 34·67 to 1 : 33. In the year 1912–13 the assessment is 2,110 instead of 2,210 million pounds, and the ratio 1 : 33·5 instead of 1 : 35·25. There also seems to be some error in 1914–15.

be quite wrong, and due to the change in the instrument of measurement.

Further, as the net taxable income brought under income tax is four times as great per head in Great Britain as it is in Ireland (which is another way of saying that the proportion of non income-taxpayers is much lower in Great Britain), it is clear that the *whole* range of incomes is a lower one in Ireland, although the section that " protrudes " above the income tax exemption line may have the same characteristics as in Great Britain. As a matter of fact, at the present time we find, for this part of the distribution, that the allowance made by way of the assessment affects the ratio only slightly, but that made by the rate of tax is more important, as the net tax paid per pound of net assessment is substantially lower in Ireland, and if we were to add the produce of super-tax as the upper end of the income tax graduation, the difference would be more important still.

Other points may be mentioned as affecting this table. (1) There has been no re-valuation for Schedule A and Schedule B in Ireland. (2) The system of dealing with farmers' incomes has quite changed, and may materially affect the result. (3) The table is drawn up entirely on the assessment basis, and as such does not represent the entire income of residents in Ireland. If those residents draw more in proportion from England than English residents draw from Ireland, it will understate the relative capacity of Ireland. There is no doubt that industrial and commercial development proceeding, relatively, more rapidly in Great Britain would help to account for the changed ratio in the amount assessed, but if, as will be shown later, Irish residents have participated in this greater prosperity in England, the effect upon relative taxable-capacity is not altered to such an important extent.

The Financial Relations Commission were greatly influenced by the fact that their two tests gave congruent results, viz. 1 : 17 for one as against 1 : 21 for the other, and they took the arithmetic mean between 17 and 21, viz. 19. So, with the capacity being 1 : 19, they were able to say that none of them put Irish ability as greater than one-twentieth of that of the United Kingdom.

Professor Oldham applies this method to Tables I and II. He says, " It is now evident that the two tables are not confirmatory, but are contradictory. Table I would show that if the relative taxable-capacity followed capital wealth, it has been steady, but Table II shows that the relative taxable income has

been shrinking every year and, therefore, the conclusions are completely contradictory." But, he says, "If we must choose between them it is manifestly Table II that comes nearer to the measure of capacity." He is loth to accept Table II, as it indicates that the plight of Ireland is desperate indeed—her taxable income withering faster than her population. But I have shown that quite such desperate conclusions need not be drawn from the material he has employed.

Professor Oldham concludes that the death duties method must be taken to be failing as an indication of taxable-capacity, because we must look rather to the annual income, and this is greater, in relation to capital, in England than in Ireland; or, in other words, the capital value of property is diverging in Ireland more widely than in Great Britain from the available income which is the source of taxation.

The question whether the statistics on the death duty basis may not still be taken as representing with great fairness the relative amount of property owned by residents in each country, is one which need not be discussed here, for it does not apply in strictness to realty, and we might still have to decide the question as to whether Professor Oldham would want to charge the absentee landlords' property for the benefit of Ireland. He makes the point that the progress of Land Purchase has enhanced the capital value of Irish land, but statutory provisions prevent there being very much effect in this. In his reflections upon the stationary results of the Estate Duty Table, Professor Oldham takes note of my remark about "net produce" being a test of capacity, and works this out for the Estate Duty, using the produce of duty instead of the values assessed. Thus he gives in Table III the annual yield of the estate duty from Ireland and for Great Britain, with their ratios. These progress from 1894–95 1 : 17 to 1897–98 1 : 22; 1 : 26 in 1907–8, remaining in that neighbourhood until 1916–17 when they become 1 : 29, falling to 1 : 26 in 1919. He considers that this is in harmony with Table II in so far as it is shown that there has been a shrinkage in the taxable-capacity of Ireland, but he overlooks the important fact that the graduation of the Estate Duty has been steepened several times, and that if there are fewer rich Irishmen than Englishmen in proportion, this necessarily appears to reduce the ratio or taxable-capacity. All that has happened is that greater recognition is now being given to quality or individual capacity, and that the shrinkage shown by the total is not necessarily a real shrinkage at all. The present scale of duties

applied to the old conditions might have given a ratio equal to the present one. Suppose, for example, that the rate on estates of over a million pounds were greatly increased. If there are a number of such estates in England, but none in Ireland, this would automatically increase the English Duty as against the Irish, and so appear to cause the relative Irish capacity to shrink.

What Professor Oldham shows as a "shrinkage" in Table III is really a progressive movement towards a more accurate and scientific determination of capacity.

He then asks, "what is wrong with the income tax method?"; and deals at length with the technical details of the distinction between revenue collected and revenue contributed. He has many severe things to say about the methods on which these adjustments are made, regarding the whole thing as a statistical exercise worked out by the Treasury on a plan of its own devising. He bases his criticism mainly upon evidence given before a Commission of Inquiry in 1911, but one cannot help feeling that his caustic references to "Grand Lamas" and "Treasury bureaucrats" generally might have been differently expressed or even omitted if he had been better impressed with the full explanations given in the Command Paper No. 786 (1920) wherein the basis of the financial estimates is clearly set out in amplification of Parliamentary Paper 329 of 1891.

He then proceeds to examine the question of the income tax *contribution* by Ireland as distinguished from *collection* in Ireland, as set forth in the Annual White Paper of adjustments. For every £100 contributed by Ireland in 1902–3 2·8 per cent. was collected outside Ireland; then for some years it was about 9 per cent., but in 1911 it rose to 20 per cent., and has now reached 30 per cent. (Table IV). For example, in 1919–20 £7,893,000 was collected in Ireland, but £11,253,000 was "contributed"—the Treasury clerks "*think they have evidence* that domiciled Irishmen draw so much of their income from their investments in Great Britain. . . ." Now he gives two reasons which are no doubt effective to a certain extent: the Land Purchase Act, 1903, enabled owners to sell estates to *exempt* tenants, and invest the proceeds in British Securities; and, secondly, banking facilities in Ireland of late years have resulted in greater freedom of industrial investments outside. But he agrees that these are quite insufficient to account for the change in Table IV, which must be itself "suspect, for it looks well-nigh incredible." The main reason for the large increase has escaped him. The figures of tax "contributed" include super-tax from 1910–11, and as

this is *paid* in London there is naturally a very great increase in the adjustment figures. In the above example the income tax *without* super-tax "collected" in Ireland, was £7,893,000 and "contributed" in Ireland £9,913,000, or 20·4% collected outside, while the remaining 10 per cent. is accounted for by super-tax. Professor Oldham embarks upon an elaborate criticism of the method involved in determining the amount of the adjustment, known as "re-sealing" for Estate Duty purposes—a record of the Estates in which some duty is paid in one country in respect of property owned by deceased residents there, although situated in the other country—and some very technical details which it is not necessary here to investigate. We might say, however, that the adjusting percentage which was ·2 up to 1902–3 became ·8 in 1908–9; ·9 in 1911–12, and 1·1 in 1917–18, and this progression also partly accounts for the "well-nigh incredible" result reached by the Treasury "Grand Lamas." Professor Oldham says that these clerks "whose mysterious motions nobody but a fool or an Irishman ever dares to criticise, have in 1919–20 transferred £3,360,000 of the Schedules C and D income tax receipts collected in Great Britain to the credit of revenue 'contributed' by Ireland; the sum (taking the average effective rate of the tax at, say, four shillings in the pound) represents about £16,000,000 of annual dividends received from investments outside Ireland. It is not pretended that the 'domiciled Irishmen' who to-day enjoy this income of £16,000,000 spend any of their time or money in Ireland. But when they die the family solicitor for their executors takes out probate somewhere, and then gets this grant of probate re-sealed in the Irish Court to entitle them to handle any shares in Guinness's Brewery or in Irish Railways there may be among the personalty of deceased." Here he places too much stress upon *domicile* altogether—it is important for Estate Duty, but for income tax it is the residence that matters. The point is clearer if turned round the other way. A resident Irishman dies in Ireland, the Probate is taken out in Dublin, and it is found that the deceased owned shares in an English railway, so that it is necessary to re-seal the Probate in London. The result of aggregating the re-sealing statistics then shows that residents in Ireland have quite a large amount of capital invested in England, and therefore draw quite a good income from England for the benefit of residents in Ireland.

The adjustment is intended to allow for tax paid in Great Britain on income going to *residents* in Ireland. Moreover, to

turn this duty into income we should convert the *income tax portion* at not more than six shillings in the pound, giving not more than 7 millions of income instead of 16 millions.

He concludes by rejecting the contribution adjustment of Table IV as a device for amending the net assessment of income tax in Table II, with its remarkable shrinkage, to make it a test of *capacity*—but, strangely enough, he accepts the contribution table *in toto* as a statement of the real contribution when he is measuring " over-taxation." So he falls back on the harmonic mean between Table II, the net income tax *assessment*, and Table III, the Estate Duty *produce*, which gives him 1 : 20·1 for 1895; 1 : 29 for 1909 and 1 : 31·4 for 1919–20, and incorporates the results in Table V, his "Taxable Capacity" of Ireland. Let us be clear what this means. He combines one ratio based on property only, ignoring all earned income, all family circumstances, but having some recognition of *quality* of ability, with another ratio possessing, uncorrected, all the accidents of the *place* of assessment, and in which the difference of quality or nature and amount of income is given recognition in so far as it is dealt with by abatements of income, and not in so far as it is dealt with by differences of rate. Of course Professor Oldham's result may possibly be correct, but, if so, its accuracy is quite accidental, and it is long odds against it being of any value. Having computed in the final Table VI the amount due from Ireland, on his index, as 31·6 million pounds, he deducts this sum from the contribution of Ireland—over 50 million pounds (accepting the computation of the contribution made by the much criticised Lamas), and then announces the "over-taxation" to be £18,516,000 in 1919, "contrary to the Act of Union 1800."

The only remaining point which I wish to make in showing that Professor Oldham's case is, at any rate, "not proven," is in relation to indirect taxation. So far everything that has been said is based entirely upon the population above the income tax exemption limit. You might treble the population of Ireland below that limit, leaving Great Britain stationary in that respect, and not alter the above calculations *one iota*. Can this be right? It can only be right if the sub-income tax population has no tax-paying capacity, but we can hardly justify such a view so long as we, in fact, charge them to indirect taxes. Turning these taxes into terms of an income tax, we no doubt get a regressive system, but our practical basis of taxation is rather that, in so far as they, in fact, consume dutiable goods

(of a non-essential character), they display a tax-paying capacity by their methods of consumption. I have examined, and to some extent justified, this position in Chapter III of *The Fundamental Principles of Taxation.*

Professor Oldham's "over-taxation" arises mainly through an assumption that direct and indirect taxable-capacity are the same. As a matter of fact the last return shows the Irish share of revenue paid by customs to be 9·53 per cent. and by excise 7·93 per cent., as against the share by direct taxation between 3 and 4 per cent. If this view of indirect taxation is seriously maintained, it means, of course, that an Irishman with £100 per annum should pay the same total duty on all whisky and tobacco that he consumes, as an Englishman with the same income, even though the Irishman consumes three times as much. This aspect of taxable-capacity may well be argued, but it can hardly be taken for granted. We can put the whole point to a crucial test: let five million sturdy Irishmen earning £2 10*s*. a week be miraculously added to their population without any such addition in Great Britain, and Professor Oldham's index of taxable-capacity would not budge an inch, but his item of "over-taxation" would go up by leaps and bounds. Is not such a result a proof of the weaknesses of the method and its underlying principles?

"Over-taxation" of Ireland resolves itself largely into an expression of the extent to which consumption taxes exceed true income taxation. If they are merely a convenience—a means of collecting taxes on small incomes indirectly—there is clearly over-taxation, but if they have any other *raison d'être*, then "over-taxation" is a misnomer, and merely a measurement of one type of capacity in terms of another type. In any case it is a fundamental question that has hardly yet been faced and certainly never settled.

It may well be conceded that a greater weight of taxation unrelated to income-ability, falling in a particular quarter through differences in social habits of consumption, may be justifiable so far as all contributors are within a single national and fiscal area, while at the same time it is held that contributions by fiscally independent units to a common fund must be strictly proportioned to their respective aggregated individual "ability to pay," and quite uninfluenced by whether one group are heavier consumers of spirits or tobacco, or tea. On this assumption any excess contribution due to difference of social habit may very rightly be termed "over-taxation." Let it be postu-

lated, for the moment, however, that indirect taxation is a mere administrative device to secure income tax on small incomes. It might be thought that the ratio found to exist between the two groups above a certain level of income would hold good below that point also. Our knowledge of symmetrical distribution of income has greatly advanced since 1896, and we know that this would be a sufficiently sound assumption under one condition. That condition is that we have established a ratio between corresponding or symmetrical parts of two groups, *e. g.* all above the median or upper quartile, or even, as in the case of our income tax, all above the upper decile. For instance, if we knew that the taxable-capacity of the top quarter of the population were as 30 to 1 in the two groups, it would not be a wild assumption that the ratio applied equally to the lower three-fourths. But, unfortunately, the direct taxation statistics do not give us such a symmetrical division, for the exemption limit of a fixed sum for both countries does not cut each distribution *at the same percentile.* The figure of £160 in 1914 may have cut off the upper 10 per cent. in England, but only the upper 4 or 5 per cent. in Ireland, if the whole range of Irish distribution, though parallel on a Pareto graph, were *on a lower scale.* In short, when we cut across by an absolute figure, if there is a much larger proportion of our population below that figure in one case than the other, the ratios of ability obtained for the direct taxation areas must be profoundly modified for the lower. For this reason, the ratio of contribution through indirect taxation, by Ireland, even if corrected for differences of average individual habits of consumption, ought to be higher than the ratio of income-tax paying ability. To the extent to which, when so adjusted, it is found to be higher, " over-taxation " is a misconception. I may refer, without elaborating them, to the considerations that would arise in a comparison of the relative aggregate net ability above a fixed or absolute point (instead of above a proportionate point) where the two price levels in the same nominal currency are widely different.

To sum up :

(1) The old concept of taxable-capacity should be modified on lines parallel to the development of the idea of individual tax-ability.

(2) Net assessment to income tax has undergone progressive change in partial expression of this modification, and is now a better test of capacity, *over the area to which it relates,* than formerly.

(3) Taxable-capacity should be attached definitely to the aggregate capacity of the inhabitants, whatever the source of their wealth.

(4) The difference between the old and present ratios of net assessment is not conclusive evidence of a "shrinkage" of capacity.

(5) The crude net assessment requires greater modification than heretofore to assign income to the right country.

(6) The application of direct taxation ratios to the whole population, and to contributions by indirect taxation, can only be made with great care, and the "over-taxation" or "under-taxation" arising therefrom, due to the larger proportion of the population coming solely under the latter method, and not due to differences in social habits, is quite fallacious.

(7) That part of the "over-contribution" due to different habits may possibly be rightly described as "over-taxation" under distinct fiscal régimes, but that matter is one for further argument and inquiry.

(8) Professor Oldham's results, though a useful beginning to the present problem, are, in part, based on obsolete ideas and methods, and, for the rest, are inconclusive.

J. C. STAMP

REVIEWS

The Fundamental Principles of Taxation in the Light of Modern Developments. By SIR JOSIAH STAMP, K.B.E., D.Sc. (London: Macmillan & Co. 1921. Pp. xii + 201. Price 10s. 6d.)

THIS book consists of the Newmarch Lectures at University College, London, for 1919. In Early Victorian times it would have been entitled simply "Lectures on Taxation," and perhaps the vaguer title would have been more accurate. Sir Josiah Stamp is always interesting and instructive, but it is not given to him or any man to throw the light of modern developments on the fundamental principles of taxation very effectively in six lectures. I confess to some doubt about the meaning he attaches to "fundamental principles." I suspect that nine-tenths of his audience went away with the impression that he was taking Adam Smith's four canons (who invented that phrase? Smith calls them "maxims") as his text, and suggesting additions called for by modern experience. But the four canons are scarcely to be regarded in any sense as fundamental principles. As any careful reader of Dr. Robert Jones' *Nature and First Principle of Taxation* knows, they are only four selected out of the larger aggregate number put forward by various writers whose works Smith had read, and it may well be doubted whether the selection was not as much the result of imperfect memory as of deliberate choice. Bastable, in the first edition of *Public Finance* nearly thirty years ago, put the Smithian maxims into a mere appendix, though he subsequently relented and admitted them to the text. Since then the whole subject has been simplified by the invention of the doctrine which Sir Josiah quite unjustifiably calls "Marshall's doctrine of least aggregate sacrifice." Sir Henry Parnell may have "anticipated" this doctrine, and Professor Carver, whom Edgeworth quotes, may have suggested it, but its first definite enunciation is, I think, to be found in Edgeworth's article in this JOURNAL for December 1897, where he says "*Minimum sacrifice,* the direct emanation of pure

utilitarianism, is the sovereign principle of taxation." It is curious that Edgeworth, the supposed embodiment of the unpractical, should have been the promulgator of this glorified common-sense and eminently practical principle, but it must be admitted that, perhaps misled by his own reputation, he embedded it in articles of an uninviting appearance on "The Pure Theory of Taxation," and treated it as if it required us to put the incomes of a year on what Dr. Jones calls a Procrustean bed, and to forget that next year no incomes will be found longer than the bed. It was soon seen that minimum sacrifice need not mean minimum sacrifice for such a very short run as that of a single income-tax collection (see Edgeworth himself in the *Memoranda* of the Royal Commission on Local Taxation, published in 1899, and the present reviewer on "Equity and Economy in Taxation," ECONOMIC JOURNAL, December 1901, and *History of Local Rates*, 2nd edition, 1912). Minimum aggregate sacrifice in the long run is the principle which all good ministers of finance and parliaments endeavour to the best of their abilities (often poor) to adopt. Under its ample folds, equity, ability, benefit and all the other good things drop into their proper places, and no place is found for that slogan of the barbarian adult and the civilised child, *fiat justitia ruat caelum.* Civilised adults will not give an unlimited price for equity. Marshall, always alive to the progress of thought, adopted the doctrine in *After the War Problems* in 1917. How Sir Josiah Stamp has inadvertently misled his readers in this matter is illustrated by the fact that one of his reviewers (B. M. in the *Statistical Journal*, May 1921) says approvingly that he "criticises Prof. Marshall's 'aggregate sacrifice' theory as leading to pure confiscation of income at certain levels," the fact being that the "Procrustean bed," so far from being constructed by Sir Josiah Stamp to kill the theory, had served at its birth twenty-four years earlier.

Our author intends, he tells us, "to outline the questions of principle which are raised by modern developments in taxation or are made obvious by the intensity of the burden, and to view them under a new arrangement." Under the new arrangement we look at them first from the point of view of the taxpayer, then from that of the State, and lastly from that of the "community as a producing or Economic Society." This seems very much like another way of saying that the three fundamental principles of taxation are Equity, Productiveness, and Economy, the last of these terms being of course used not in the petty sense of cheapness of collection (as on p. 93 of the book), but in the

wide sense in which satisfying economy means serving the permanent economic interest of the people—the sense in which Adam Smith tried to explain his fourth maxim. The new method is expected to enable us to treat modern problems "with that isolation of effects and freedom from distraction which are so necessary to a clear conception of essentials," but it is no more productive of clean cuts than the old. Smith admitted that "after all the proper subjects of taxation have been exhausted, if the exigencies of the State still continue to require new taxes, they must be imposed upon improper ones" (*Wealth of Nations*, Vol. II, p. 390, repeated in almost the same words, p. 414), and modern writers admit that a large quantity of economy must outweigh a small quantity of equity, and vice versa. Just so Sir Josiah Stamp has to admit that compromise between the three standpoints is necessary. (We need not hold him too literally to his statement that "Most taxes in practice represent the best practical compromise between the three standpoints that can be arranged in the particular circumstances of the time," which rather suggests the tax-surveyor or the Royal Commissioner on the Income-tax whose recommendations have been adopted.) The new arrangement seems in practice even less successful in keeping different considerations apart than the old. While looking at things from the individual standpoint, we are asked to consider the doctrine of taxing rents or surpluses, the principal recommendation of which is to most of its advocates its supposed absence of discouragement to production, and we are also asked to deal with "Progression justified as an engine of social improvement." While taking the State's point of view, we are to consider the possibility of certain taxes promoting dishonesty or producing a tariff war. Though the taxation of alcoholic liquors according to alcoholic content—a matter which concerns individual drinkers of alcohol as among themselves—is dealt with from the standpoint of the individual, the very heavy and productive taxation of alcoholic liquors as a whole, which touches the individual drinker and the individual teetotaller acutely, only comes up when we get to the standpoint of the community.

The general trend of recent developments, Sir Josiah holds, is everywhere towards personal taxation of income becoming more predominant in national taxation while at the same time it loses ground in local taxation. He is doubtless correct in this, but he might perhaps have pried a little further into the future. Are there no signs that as communications grow national

income-taxes will break down in the future as local income-taxes have done in the past? The states of the North American Union are treading the path which English parishes trod in the eighteenth century, and the states of Europe and America are likely to have gone the whole way before the end of the twenty-first, if not earlier. The growing arrangements for meeting the "difficulty of double taxation" are the thin end of the wedge of a virtually international income-tax which is likely to precede the abandonment of complete independence by the states.

Income-taxation will continue to be progressive, but on the question how steep the progression will or should be, our author throws little light. He seems to have cut off the possibility of doing so by considering it mainly from the individual standpoint. "It is very difficult," he says, "for a man to say quantitatively that one boot pinches *three* times as much as the other, even where both are his own, and how much more difficult is it for one man to say that his boot pinches twice as much as another's!" Quite so, but the remark suggests that we had better give up "standpoints" and go back to the old "maxim" method, and say that Equity really furnishes no guide of any permanence (compare opinion at the time of Harcourt's budget with that of the present time), and that the steepness of progression must be decided by the maxim of Economy. We shall never decide whether to put a penny on beer or to further steepen the super-tax on incomes by considering how much the loss of a penny pinches the beer-drinker and the duke: we shall, and we do, decide it by making some rough estimate of the aggregate advantage in the long run of the two methods to society at large. For example, if we find that cheaper beer means better food for underfed children while less super-tax means more training of horses to run fast for a short distance with a very light burden, we incline to the super-tax: but if we find cheaper beer means more beer for drunkards and less super-tax means more houses for the people to inhabit in comfort and health, we incline to the beer tax. Whether we use the phrase or not, we are following the principle of least aggregate sacrifice.

If Sir Josiah had found salvation in the comfortable doctrine of least aggregate sacrifice he would, I think, have told us some things which we should be the better for knowing. No one is better qualified than he to tell us whether the recent enormous aggravation of progressive direct taxation has actually brought about (as well as merely tended to bring about) an important redistribution of net (*i. e.* after deduction of taxes) income, and

whether, if so, the redistribution is likely, either for a time or permanently, to cause an important diminution in the supply of fresh capital. He quotes Mr. W. H. Mallock to show that a levy on capital which caused greater equality of wealth would be likely to diminish savings. But surely the essence of a capital levy is not the redistribution of the total of net incomes but the liquidation of debts on which individuals pay interest (collected by the tax-gatherer) to themselves and each other. Any little difference which a capital levy might incidentally make would, we may safely say, be a trifle compared to the redistribution which has already been made by the new taxation and which would be simply maintained by the levy. It is no doubt extremely tiresome to have to remember that £500 a year nowadays means about £450, while £1000 a year means about £800, and £20,000 a year means little over £10,000 after income-tax and super-tax have been taken out and before any provision for death-duties is thought of. But we find it necessary to have the smaller figures before us in real life, and we shall have to treat them and not the gross figures as more nearly indicating the distribution of economic goods.

EDWIN CANNAN

The Economic Development of France and Germany. By J. H. CLAPHAM, LITT.D., Fellow of King's College. (Cambridge: University Press. 1921. Pp. xii + 420.)

MANY economic books fall into one of two classes: there are books which determine the future scope of academic instruction, and there are books which are themselves called into existence by academic requirements. With the growth of economic departments and commercial faculties in modern English and American universities—to say nothing of other countries—this second class is bound to increase. Subjects are put into programmes of instruction or made examination requirements because they are deemed desirable for the purpose, even though there are no available textbooks. The material may be scattered over a multiplicity of books, reports and journals, difficult of access to the undergraduate student and many of them in foreign languages. If the right sort of man is appointed to teach the subject, he selects and combines and generalises in preparing his lectures. The outlines of a textbook are sketched in; and finally the teacher earns the thanks of generations of students and

furnishes a basis for further scientific advance by issuing his collection as a book.

Such is the genesis of Dr. Clapham's treatise. It is the outcome, evidently, of the part assigned to nineteenth-century economic history, as to "realistic" studies generally, in the Cambridge Economics Tripos. For some years, he tells us, he has "lectured at Cambridge over the ground covered by this book"; and he "was urged by friends to put his material into book form, for the use of the growing body of those at Cambridge and elsewhere who now study European economic history, and are handicapped by the lack of books in English, and of comprehensive books in any language."

Cambridge "and elsewhere" ought to be very grateful to him. The work is most competently performed: it is based on wide reading; the author is impartial and judicious. There was once an Oxford bursar so sage and moderate that his contemporaries knew him as *ὁ φρόνιμος*: to no one among economic writers is the epithet more appropriate than to Dr. Clapham. It was a heavy and cumbrous task which he undertook: to put together in only four hundred, not too closely printed, pages all the really big facts about all the sides of the economic development of France and Germany for a hundred years—with some necessary incursions into Belgium and Holland and Denmark. Such a book was bound to be "facty." Dr. Clapham has a pleasing gift of illuminating phrase, when he gives himself time and space to "let himself go"; as, for instance, when he says that all through de Lavergne's book on the Rural Economy of France "the whistle of the locomotive can be heard" (p. 158). If such touches are rare, and if the book occasionally reminds us of the style of the Handwörterbuch articles he has found of so much service, that is partly due to the fact that this is the first attempt in English to cover so vast a field. The book is to be read bit by bit, side by side with lectures; or consulted by the general reader for particular topics or periods. I do not suppose the author ever imagined that any one but a reviewer would try to read it through in a few days!

The modest duty of a reviewer in a case like this is first to make it quite clear that here is an indispensable textbook; and then to offer some suggestions towards the improvement of the inevitable later editions. Some of the suggestions in this case are called forth by one feature in the plan of the book. "Footnotes have been reduced to a minimum." I am inclined to think the parsimony of footnotes has gone a little too far. In future

editions the Cambridge Press will not want to have the pages pulled about. But would it not be possible, for some dozen or so of the conclusions which Dr. Clapham knows to be controversial, to have a series of brief notes in an Appendix, indicating, in summary fashion, where the evidence is to be found?

The value of the study of economic history for the better type of student is the opportunity it can be made to afford him for the use of his own reasoning powers. If economic theory calls for mental exertion of one kind—the exertion of following a sequence of cause and effect, economic history calls for mental exertion of another kind—the weighing of evidence and the formation of quantitative or proportionate judgments. Doubtless it is the function of a lecturer, going over the same ground subsequently, to criticise what seem to him faulty conclusions. But even the ordinary student in a university is benefited by having doubts, and the ground for doubts, occasionally indicated to him. In most cases he will perhaps be inclined, if he looks up the evidence, to agree with Dr. Clapham; but it would be for him an instructive experience to learn, here and there, how the author has reached his conclusions.

Dr. Clapham, as I have before observed, is as a rule eminently careful and precise and fair-minded. But *aliquando bonus Homerus dormitat;* and there are, I think, occasional passages where literary phraseology will give an impression beyond what, in his quality of scientific historian, Dr. Clapham would probably care to assert.

For instance, in the account given of the resort by Germany to agricultural protection (pp. 211–214), and the reference to Bismarck, there is not one sentence that is not defensible. But is not the reader in danger of thinking Bismarck rather more of a selfish landowner than Dr. Clapham intends? Dr. Clapham might perhaps refresh his memory of what Mr. Dawson says (*Evolution of Modern Germany*, p. 239). And ought the reader not to be emphatically reminded that the Agrarian party rested quite as much on the substantial peasants of the south-west as on the large landowners of the north-east? "Whether the balance was fairly held as between the various rural classes is much more doubtful," we are told, than the general effectiveness of the protective policy. True! but the ordinary reader will understand the sentence to imply Dr. Clapham's opinion that it was *not* fairly held. Of course Dr. Clapham knows that no subject was more hotly debated in Germany than the effect of the corn laws on the peasants, and that there were high authorities among the

" agronomes " who thought the peasants had quite sufficient reason for supporting the Agrarian policy.

There is even more reason for a very mild protest when the literary phrases are not Dr. Clapham's own, but are quoted. Thus what somebody " said in 1908 "—that " the co-operative societies had done more for the small farmers than all the agrarian and protection laws together "—is actually quoted twice (pp. 221, 224). Now the force of the remark depends on the authority of the speaker. If Dr. Clapham would give us the reference we could judge of its weight: until he does so, he really fathers the opinion. And yet his own cautious estimate of the effect of co-operation certainly would not have suggested anything like so sweeping a judgment.

From another writer—in this case the reference is given, to a work which has created some stir of late—is quoted the saying that " the German Empire was built more truly on coal and iron than on blood and iron." Our author says that the iron figures of the sixties and early seventies do " *something* to confirm " this pleasing literary collocation of words. The reader will take this to mean that they do *much* to confirm. But, of course, Bismarck's famous phrase of 1862 cannot be got round like this. It was " blood and iron," in Bismarck's sense, which turned Austria out of the old Confederation and created the North German Confederation; " blood and iron " which hastened the adherence of southern Germany to the new Empire in 1871; blood and iron which gave Germany the iron ore of Lorraine. How far the Germany of 1914 was the creation of " force," from the time when Prussia coerced its neighbours into the *Zollverein;* how far it was the creation of " natural resources "; and in what way " force " and " resources " were related—this is a problem which, if touched at all, deserves to be handled seriously.

But a few such passages are, after all, only spots on the sun. The book is a thoroughly satisfactory one, and a great boon to students in all English-speaking lands.

WM. ASHLEY

Napoleon's Navigation System. By FRANK E. MELVIN, Ph.D. (University of Pennsylvania: New York: Appleton. 1919.)

DR. MELVIN'S thesis deals with the clash of Napoleonic and British maritime laws and customs; and for it he has studied with good effect British and French archives relating to the

subject; also those of Washington, though he has in part reserved the last for subsequent treatment. This is a little unfortunate; for he states that the American evidence explains "the unsolved riddles of Franco-American relations between 1806 and 1815"; and the present study cannot, therefore, be considered as completed. However, Dr. Melvin has covered a wide field, and students will be grateful to him for opening up many new sources of information. He points out that Napoleon's Continental System in some respects differed from his Navigation System, which dealt with "the policy, legislation and administrative measures devised by a nation to control for its own interests its sea-borne trade." The distinction is not without importance, but in 1807–12 the two tended to merge; and in practice it is difficult to treat them separately.

Dr. Melvin rightly traces the beginnings of Napoleon's Navigation System to the rebound of 1793 against the Anglo-French Commercial Treaty of 1786, and there is much evidence to show the strength of that rebound, especially among the manufacturers and artisans of Northern France, who had good cause to dislike the treaty. On the other hand (and this is a point missed by the author), the wine-growers and merchants of Southern France generally welcomed that treaty; and it is incorrect to assert (p. 2) that it was "a vital thrust at the economic welfare of France." A healthily organised community would probably have adapted itself to the new competition and have benefited by it. Indeed, the reader soon discovers Dr. Melvin's anti-British bias in such references as the "virulence" of the British attack on French commerce in the eighteenth century, its "throttling" effect on the British North American Colonies, and the insidious motives assigned to Lord Auckland in negotiating the treaty of 1786. It is well to remember that the British Navigation System was on the whole less oppressive to Britain's colonies than that of France or Spain; also that early in 1786 Louis XVI's Government forced that of George III into commercial negotiations by passing a number of *arrêts* which threatened to throttle British trade. The resulting bargains between Eden (Lord Auckland) and Vergennes or Rayneval certainly did not appear to the latter "a vital thrust at the economic welfare of France," but on the whole advantageous. That they proved to be otherwise was surely due, not to the insidiousness of the treaty, but to the sharp downward trend of French credit and industry, due to the reckless finance of Calonne, Brienne, etc. The point is important, because nearly all Frenchmen, ascribing their woes

to the treaty, thenceforth clamoured for stringent protection or prohibition; but it may fairly be maintained that, with ordinary care and intelligence in the Finance Department, France should have survived the strain, and thereafter have benefited from the freer and friendlier commercial intercourse with England which the French and British negotiators alike hoped to inaugurate.

Starting with an inadequate conception of British policy before the French Revolution, Dr. Melvin seems to accept the diatribes of the Robespierreists, and of their heir, Napoleon, against the Pitt Administration; and his work at times becomes almost a justification of the Emperor's maritime legislation, not seldom seasoned with acerbities against that of Great Britain. During the long and envenomed struggles of 1793–1801 and 1803–14, both combatants resorted to high-handed expedients for enforcing their will at sea. Great Britain in 1793, along with her Allies, sought to exclude neutral trade from France; France retaliated by the Navigation Act of that year, and thereafter tried to exclude British commerce from all lands that fell under her sway. These were war measures; but no British statesman of that time desired to perpetuate them. Napoleon, however, had that intention; for during the peace negotiations of 1806 he said to the Council of State: "Forty-eight hours after peace with England I shall proscribe foreign products and shall promulgate a Navigation Act which will permit the entry of our ports only to French ships constructed from French timber, manned by a crew two-thirds French. Even coal and English milords can land only under the French flag" (Pelet de la Lozère, *Opinions de Napoléon dans le Conseil d'État*, p. 238). Similar in tendency is his statement of September 19, 1817, to Gourgaud: "The English are stupid. In their place I would have stipulated in the last treaties that I alone should be able to sail and trade in the seas of China and the [East] Indies." Thus in his view prohibition and monopoly were not merely war measures, but a permanent policy to be imposed wherever possible by the victorious Power.

Equally important is the fact that the British Orders in Council appeared as retaliations against preceding measures ordered by Napoleon. They came in regular succession, from the spring of 1806, when his compulsion on Prussia to close the coast of North-West Germany produced Fox's order for the blockade of that coast. They caused intense annoyance to neutrals, especially the United States; but there are good grounds for believing that the harsher provisions were resorted

to with reluctance. The Order in Council of November 11, 1807, was less stringent than is here represented (p. 44).

Dr. Melvin has presented the first careful study, based on documents, respecting the Emperor's efforts late in 1807 to stimulate commerce with the French and Spanish colonies, also privately to relax his maritime decrees by means of licences. As against some earlier writers on the latter topic, Dr. Melvin proves that Napoleon adopted the licence system not earlier than March 1809, probably owing to the success attending the British licence system, and certainly with a desire to stimulate the flagging export trade of France. Petitions of Brittany corn-growers are here alleged as a probable cause of its adoption. A second licence system was put in force in July 1810, concurrently with measures for the extension and tightening-up of the Continental System, and in January 1812 was merged in a third experiment, termed *le grand Système*, which, along with the Continental System, was doomed by the results of the Moscow campaign. Dr. Melvin dwells on the irony of the situation in mid-June 1812, when the British Government made a humiliating surrender of the Orders in Council, too late to avert the American declaration of war, and when Napoleon was preparing to cross the Niemen mainly in order to re-impose his fiscal experiment on Russia. One of the contentions of this interesting thesis is that the Napoleonic Empire was doomed apart from the Continental System. That may be; but the latter so thoroughly permeated the Emperor's policy as to decide its future; and the oppressive and unsound features of that policy told heavily against him in 1812–13. I may add that the hasty abrogation of the British Orders in Council was probably brought about by the desire to propitiate, not only the United States, but also Russia and Sweden, with whom important negotiations were pending. Dr. Melvin's monograph is supplemented by an excellent bibliography and index.

J. Holland Rose

Industrial Problems and Disputes, by Lord Askwith. (London: John Murray, 1920. Pp. x + 494. 8vo.) Price 21*s*. net.

This book was bound to be autobiographical. Of its content Lord Askwith himself fills, of necessity, without undue egotism, a "great part"; and it is a creditable record of a strenuous life. Naturally, if not quite exactly, styled the "famous arbitrator"

by the neutral "*Punch*" in a "skit on strike news" reporting dire confusion following the "downing" of "his tools," and complimentarily described as "the most dangerous man in the country," whose "diplomacy" "worse than war" was fearfully admitted by an interested partisan, Mr. Ben Tillett, to rank with "genius," he had borne a foremost rôle in the dramatic scenes recalled in many of its forty-two chapters. "Facts" are there narrated within the personal "knowledge" of the most conspicuous "peacemaker" in industrial conflict of our time. He gained, indeed, the hearty thanks of tough disputants by tactful settlement of their quarrels; and we are appropriately reminded of the joint gift handed to him by spokesmen both of Scotch coal-owners and of Scotch coal-miners in the handsome shape of a silver porringer for his infant daughter, whose christening his work as their conciliator had compelled him to forgo. When our author told this story to Sir Henry James, that practitioner in industrial arbitrament "curtly remarked, with a gulp in his throat," "That is a good thing for a man to hear, and for men to do." Lord Askwith, listening to welcome acknowledgments of this sort through his official career, reached supreme repute for the grateful task of "industrial peace," and the area over which his great skill was shown was as large as it was diversified. He, if any one, was fitted therefore to explore the science and display the art of preventing or adjusting strife between employers and employed; and in the narrative unfolded in this book he has drawn on the abundant stores of rich experience.

What, we ask, could be more discerning and enlightening, at once more witty and more wise, than this realistic "generalisation?" "On the assumption," he observes, "that a settlement must be effected, say at twelve o'clock, with the alternative of a fight, generally perfectly useless, Scotland will settle at five minutes before the hour, and make quite sure; Lancashire will settle one minute before that hour; Yorkshire will debate so long that they may by inadvertence pass the hour and have trouble; Wales will take no note of the hour and sometimes settle and sometimes not; and Ireland say that the clock is wrong and that if it is right they will settle or not without any regard to it." "Personally," he adds, with dry, disarming humour, "I prefer the Scottish method." Or again, to quote from another page, could the qualifications of a conciliator be expressed more aptly or pithily than in this comparison made with those of an arbitrator? Lord Askwith, it should be noted, like most other experts on the subject, prefers conciliation, or

at least mediation, to arbitration. The arbitrator, he remarks, is in a "very different position" from that of the conciliator. "He sits as a judge, and as a rule the less he says the better, provided that the questions and issues debated before him are clear to him. If he pleads judicial ignorance and asks foolish questions . . . he is done. If he does not understand it is nearly certain that before the arguments are finished, trade terms, trade issues, the exact difficulties, will be clearly elucidated." "A conciliator has to go through the same process, but he must be far more quick at getting at the . . . kernel of the dispute, and concentrating upon that, with a view to seeing how it can be dealt with. If the parties crystallise in hopeless opposition, a settlement is doubtful. . . . In conciliation the main point is to get the parties together and to keep them together and . . . this . . . requires patience as the first, second and third qualification, and, in a minor degree, tact, judgment of men, ingenuity, courtesy, power of interpretation of the wishes of the parties, and an utter absence of exhibitions of partisan feeling. Irony, invective, or eloquence are unwise weapons to use. They are liable to be misunderstood. Anger on rare, but only very rare, occasions may be justifiable. Its strength lies in unexpectedness. Emotion is out of place; imagination must be sternly curbed. . . . The whole picture must be before the conciliator, but he must be very quick in judging the salient features and continuously keeping those . . . before his mind, even if many irrelevant matters are introduced. The more experience he has . . . the greater will be the influence of common sense, or brain power . . . or magnetism, as some people allege . . . directed to one object which, initially perhaps, nobody else in the meeting may desire or contemplate. That object is peace, and, as far as possible, a durable peace." There, clearly expressed and vividly portrayed, is the complete ideal of the industrial peacemaker.

We have given these two passages at length, as they furnish clear reason for the huge success of their author in actual work accomplished; and that work is placed on permanent record in this book, which should be, accordingly, a "manual" for all who would understand, appreciate, and follow his example. With the brilliant light thus shed, we are not surprised to read in another instructive chapter on "industrial agreements" that "as regards personal experience" Lord Askwith "can only recall a few instances" where his "awards have not been carried out, and few instances where agreements effected or drafted" by him "have been broken." "Industrial agreements," he pertinently

says, "are not always worded with great clearness or legal precision"; and "allegations of breach" "are very often due either to misinterpretation or to misunderstandings." His book testifies indeed, very opportunely, to the genuine and the lasting worth of the pacific methods which are its chief theme, although we should not forget that, as here described, they were handled by an operator of rare deftness, and perhaps extraordinary, if deserved, good luck.

The illuminating tale, thus set forth, of outstanding events in this connection between 1896 and 1914 is prefaced by some shrewd remarks on education, and on industrial training, or its lack. The story is also subsequently broken by review and criticism, no less keen and pungent, and equally discriminating, of such burning topics as labour exchanges, which are mistrusted, and trade boards, which are approved, by him, and "ca-canny," unemployment, and socialism in its three phases, which he distinguishes, of Marxism, Syndicalism and Guild Socialism. The arresting record of the abnormal era of the war, checkered as it was by heartening incident and by baffling, tangled problem in industrial relations, is then finally approached. But, in spite of apparent discursiveness in some directions, a connecting unity underlies the whole discussion and binds the reasoning together.

On the one hand Lord Askwith hints with cogency that the late "unrest" admittedly prevailing may be traced to an unnoticed, unsuspected cause. He dexterously brings it from its hiding-place. There is an obvious strong contrast, as he urges, between the zeal shown by the teachers of a boy in the elementary school he has been attending, and possibly also by his parents in his home, in developing his brains, and kindling or fanning the stimulating notion that progress and advancement will be feasible or even easy for him, and the deadening, limited, ungrateful drudgery with which he is next faced, of learning in the factory, or the workshop, no more than a single, monotonously repeated, process, or, it may be, a part only of one process, for an employer, whose *métier* it is to make the best use of specialised proficiency alone. This contrast may bring utter disillusionment to ardent and high-spirited youth. It may beget a jealous defence of vested interest in obstructive rules or conservative restrictions, or confirm a tight attachment to established rules or obsolescent methods, or it may prompt the hasty, ill-considered search for some outlet for cabined energy and dammed ambition. That may be discovered in trade-union leadership which, by a natural

consequence, regards "masters," with tacit suspicion or frank hostility, as necessary enemies. The "cold entity" moreover, as Lord Askwith justly calls it, of a "joint stock company, or a huge combine," does not lead to mutual interest, by the channel of acquaintance or of friendship, between the employers and the workmen. "The business" of the former, he emphatically repeats, is "not training but production"; and antagonism to the whole system often possesses embittered lads placed in such conditions. "Industrial education" and "changed method in the workshop handling of labour" are the remedies demanded; and careers for English youths should, in his opinion, be chosen with more care and less haphazard than they are now. Some instructive charts are drawn up with this object in view, and such is Lord Askwith's pertinent introduction to the treatment of "industrial disputes." It is, we think, an "eye-opener."

On the other hand, the important side-"problems" discussed afterwards are also linked naturally to the main subject of the book in its later history. The shock of the great war, and the rally of the nation together, temporarily at least, produced by the overpowering emergency of a grim struggle for existence, stayed the advance, but did not, it would now seem, remove the poisonous influence, of malignant *malaise* or dangerous disease at work before, setting "masters" and "men" at variance, and ranging the "haves" and the "have-nots" in opposing camps to be involved in internecine strife. Unhealthy symptoms of class warfare have, after an interval of wholesome respite, reappeared. They are the outcome of a long history. Lord Askwith, it should be noted, urges strongly that labour exchanges have, in fact, been a disintegrating force, emphasising the distinction between classes; and he similarly contends that, in contrast to such perverting policy, the cost of maintenance of the unemployed should be properly regarded as a charge upon every industry, for which the employers therein ought to feel, and to be held, primarily responsible. His statement and his criticism of Marxism, Syndicalism and Guild Socialism, which in their turn are manifestations of "unrest," are both terse and plain. His comments on the unpleasant experiences, mingled with the encouraging happenings, of the war period are, too, decisively expressed.

The grave mischief wrought by the overlapping acts of the many new departments, dealing separately with wage-claims and making wage-arrangements of their own without mutual consultation, is exposed; and we have seen elsewhere no more

damning verdict on the ramifying evil consequences of the notorious "stroke" by Mr. Churchill "off his own bat" of the "12½ per cent. advance," causing as it did a large addition to national expenditure that might have been avoided, and bringing the reverse of contentment in the Labour Market. To his credit, too, it may be observed that Lord Askwith at the very beginning of the war saw the vital need of willing co-operation of the rank and file of the workers over and above invoking the advice and getting the help and influence of their leaders. At an early stage, in a report which was not published, he also recommended as one indispensable means to that end the suppression of all profits on the supply of munitions. His wise policy and apt schemes were deflected, or were superseded, by independent ministerial action. Yet it would not, we think, be easy to quarrel with his reasoned argument on the disadvantage of the intervention of cabinet ministers in industrial disputes. That intrusion, to be deprecated, he maintains, in time of peace as tending to arouse, naturally, suspicion of political motive and personal ambition, running athwart consideration of strict justice or exact balancing of economic expediency, was aggravated between 1914 and 1919 through the final appeal usually carried to the Prime Minister as a *deus ex machina* ready to descend upon the stage of action. The conduct, indeed, of Mr. Lloyd George in 1915 in yielding to the demands of the Welsh miners Lord Askwith regards as the initial link of an extended chain of evil policy, of which the opportunism still unfortunately exhibited towards the proposals of nationalisation after the armistice was an end, or perhaps a fresh beginning, no less to be regretted. Before the war it seems Mr. Asquith had on one occasion taken strongly a more laudable attitude about ministerial intervention in industrial disputes; and Mr. Buxton's language and behaviour at the Board of Trade had been, in the opinion of our author, exemplary.

But the candour of his outspoken censure of Mr. Lloyd George is paralleled by earlier frankness on other matters. Lord Askwith—and we admire his bold independence, swayed neither by fear nor favour—praises Mr. Richard Bell and blames Mr. Robert Smillie with the same detachment as that with which he condemns the want of leadership among the railway directors and the colliery proprietors, and the lack of a settled labour policy, framed and considered a sufficient time beforehand, by the Government. Our confidence in his sane and balanced judgment is enhanced by this stern impartiality, as our attention to

his narrative is sustained by the lighter touches with which he contrives to relieve, as occasion offers, its usual sombre gravity. Of this we may quote one instance supplied by the Belfast riots of 1907. There it was found that the carters out on strike had not in fact formed any clear idea of their aims, and Mr. Larkin's aid was sought and got adroitly by our author to provide that needed step to a settlement of the dispute. With such effect indeed was this done that the fiery agitator lectured his supporters on their differences with more severity than an employer would have dared to use, and, with something tangible and definite to deal with, peace was soon conceded by the other side. The situation, humorously described by Lord Askwith, was typically "Irish"; and yet it also illustrates the general character of the methods of procedure he was wont to follow. They commend themselves by their obvious appropriateness to the end in view as well as by passing the decisive final test of indisputable success.

What Lord Askwith tried, as conciliator, to achieve throughout, was, as he expressively declared, to get "at the heart of the difficulty" in each case; and, for this object, it was of course necessary to secure that either party to a dispute should first conceive and state, clearly and succinctly, what was wanted. The mediator was then enabled to narrow down the real issue, and he would patiently endeavour to bring the quarrellers nearer together, until in most, if not all, instances, the reduced final difference remaining could be bridged or removed. No pains were too great to secure peace, and, "if possible," a "durable peace"; and, in such examples as his Music Hall Variety award, the careful detailed settlement he had made became, with slight alterations afterwards, an abiding pact. For somewhat similar reasons of definite preliminary declaration of the grounds of difference, in one of the best of his chapters he highly commends that public official "inquiry and report" which is stipulated as a prelude, though not as a final alternative, to a strike or lock-out in quarrels affecting services of "public utility" by the Lemieux Act in Canada. The choice, however, for special praise of particular sections in a book where all, we feel, is of such high quality, is not welcome; and we would now end this notice by an emphatic repetition of our sincere gratitude to its author for bright light freshly shed on a region of investigation second to none in present practical importance. We may perhaps venture here to reaffirm our own original interest in the past in such inquiry; and we have read *Industrial Problems and*

Disputes with increasing admiration for the fine workmanship of Lord Askwith, both as "peacemaker" and as expositor. His authoritative account, we are certain, is a shining beacon for safe guidance for the future.

L. L. PRICE

The Early English Cotton Industry, by GEORGE W. DANIELS, M.A., with an Introductory Chapter by GEORGE UNWIN, M.A., and some unpublished Letters of SAMUEL CROMPTON. (Manchester: The University Press, 1920. Pp. xxxi + 214. Small 8vo.) Price 8*s*. 6*d*. net.

WITH this "praegustatio," as this clear, bright little essay may fittingly be called, Mr. Daniels whets our appetite for further outcome of the "discovery" of what Professor Unwin describes—and, we can believe from the sample offered to us, without undue extravagance—as "probably a unique set of economic documents." In the "upper storey," he writes, of a mill at Ancoats have been found, and placed at the disposal of the University of Manchester for research, the "day-books, cash-books, ledgers, and letter-books" of a typical business for the eventful period between 1795 and 1835, with the "whole correspondence," "invoices" and "receipts" of the firm "neatly endorsed and packed year by year into tin boxes." This "entire record of a great industrial and commercial enterprise during the forty years of its most rapid expansion" has furnished the material for "reconsideration" of the history of the early English cotton industry. It is attempted in six chapters, dealing first with the "development" and "organisation" of a "cotton manufacture," and then with the "coming of machinery," from Kay with his flying shuttle to the outstanding figure of Arkwright, whose turn for successful business could not be disputed, whatever may have been the rights and wrongs of his full title, compared with that of others, to inventive genius. The tortuous tale of the "opposition to the patents," which is next disentangled, is followed by an account of the introduction of the "mule," and the opening, in consequence of its possibilities, of a new stage in the growth of the industry; and the affairs of Samuel Crompton, the inventor of that fresh machine, appropriately named, are, lastly, set forth with the aid of hitherto "unpublished" letters.

We cannot follow here the fortunes, or misfortunes, of the author of that correspondence; and we must content ourselves with notice of what seem to us the two most conspicuous instances of the "reconsideration" of economic history which Mr. Daniels has essayed and Professor Unwin has endorsed. We feel indeed that, as the latter is perhaps tempted away from the strait path of relevant discussion and historic neutrality to represent the Merchant Adventurers in a less amiable light than that in which they have been wont to be portrayed—as the main hindrance rather than the chief instrument of trade-expansion, because they sought for themselves and encouraged in others a monopoly, outside the range of the districts fettered by which the advantages of *laissez-faire* in Lancashire and the West Riding of Yorkshire permitted free and beneficial progress—so the former is betrayed, by a natural reaction from previous traditional account, to lay too much rather than too little emphasis on the departures from the accepted record he would recommend as truer to the facts of the Lancashire cotton industry.

On one of the two points, however, we would mention that both he and Professor Unwin are in broad accord with recent general tendencies. They confirm the opinion, which has been spreading among informed historians, that capitalism and capitalists exercised a notable influence before the Industrial Revolution in the organisation and finance, not alone of marketing, but also of production. Mr. Daniels, with fresh evidence at his service, throws doubt upon the theory that before the factory era the majority of work-people were independent producers. For the purchase of raw materials as for the sale of finished goods many were "economically" dependent on the "Manchester merchants" from an early date, and, later, the "greater proportion" of the "fustian weavers"—fustian, it should be remembered, being the antecedent or beginning of cotton-manufacture—were, in effect, the work-people of "capitalist-employers." Mr. Daniels makes the interesting additions that between "journeymen" and "apprentices" and such "capitalist-employers" "undertakers" intervened, who, owning three or four looms, were yet essentially employees, and that "combinations" found in Manchester linked the older forms of association of the "yeomanry," subordinated to the "livery companies," with the modern trade unions that we know.

The other of the two new readings to which we would refer is more novel, but it is hardly less convincing. It is connected with the supposed combination of agricultural and industrial

work. Mr. Daniels urges that in the early English cotton industry the evidence, when reviewed, indicates that from such alleged dovetailing the great majority of those who lived in Manchester and its neighbourhood, and other crowded centres, must obviously be "ruled out," and he draws a pertinent distinction between small farmers, combining occupations, and cottagers entirely employed, except at harvest, in industrial work. The former were, he holds, only a limited class and the latter far outnumbered them.

In conclusion we would comment favourably in a sentence on his balanced view that the economic movement at the time examined, namely between 1795 and 1835, was, in its early stages, "more constructive than destructive," and that the dominant factor, subsequently introduced, in the formidable shape of the Napoleonic war, was disturbing and distorting, wasting production, embittering industrial relations and thwarting social developments.

L. L. PRICE

An Economic History of Rome to the End of the Republic. By TENNEY FRANK. (Baltimore: The John Hopkins Press. 1920.)

ONE attractive feature of this book is that the author pays special attention to such archæological evidence as bears upon his subject. Thus we have in Chapter I an account of the drainage system (the so-called *curiculi*) which bears witness to a highly intensive system of agriculture in parts of early Latium (pp. 5–9). The foreign trade of Etruria and Latium in the prehistoric period is illustrated by reference to grave-finds (pp. 16–17, 22–24). The fifth chapter explains what light is thrown by early Roman coinage on the relative values of the precious metals, and discusses the monetary policy of the Republic, which was apparently based on the two principles of using both bronze and silver coins as legal tender, and of varying the weight of *as* in accordance with the fluctuations in the silver-price of copper. The management of the State-mines in Spain is described from the evidence of the *Lex Metalli Vipascensis* (pp. 144–5). In the eleventh chapter we have an account of "Industry at the End of the Republic," which is based upon a study of Arretine pottery, the brick-trade, the glass-trade, the bronze-work of Capua, the waterpipe-makers of Rome, the gem-engravers of the Via Sacra. Chapter XII is

mainly devoted to the trades and industries of Pompeii. We do not gather that Professor Frank claims to have made new discoveries. But his exceedingly careful synopsis of the archæological evidence will be most useful to economic historians who are not so completely versed as he in the technical literature of his subject. It is only natural to find that evidence of this kind, especially that dating from the earliest periods, leaves a considerable field for conjecture; and we do not feel altogether confident that Professor Frank is on firm ground when he begins to deduce the social conditions of primitive Latium from the evidence of the *curiculi*. But he has made it easy for his readers to distinguish between the facts and his inferences, and the latter certainly deserve respectful attention.

Professor Frank, however, by no means relies exclusively upon archæology. For the agriculture of the historical period, for the development of commerce and capital on the great scale, it is the literary sources upon which we must still rely in the main, though here and there the spade may turn up objects which bear witness to some kind of factory system, if that name can appropriately be applied to a mere organisation of hand-labour. Professor Frank uses his literary evidence with discretion—witness his excellent remarks on the reliability of the earlier Roman historians (p. 34). Now and then he gives us reason to suspect that he is more at home in classical than in economic studies. We find it difficult, for instance, to follow him in supposing that the client of early Latium made a living out of a garden-plot of two jugera (the *heredium*, which he oddly calls a copyhold), and his own footnote to the passage in question shows that he feels himself on uncertain ground (p. 11). He taxes the Plantagenets of fourteenth-century England with reducing "the so-called pound to a fourth of its size," a remark which shows a strange ignorance of English numismatics (p. 75). Still we are in his debt for good materials vivaciously interpreted. Excellent, for example, are his sketches of the operations of Rabirius Postumus (pp. 227–8), about whom we should probably know much more if Cicero had been briefed by his opponents, and of the immortal Trimalchio (pp. 264–5), in whom Professor Frank sees the type of the speculative shipowners of Pateoli. We get good short accounts of the business of a Roman banker (pp. 231–2), of the Italiote commercial community at Delos (pp. 233–6). The fifteenth chapter is specially devoted to the labourer and his status. Professor Frank finds evidence of free craftsmen at Rome and Pompeii, but he points out that the shipwright gilds at Ostia seem to

have been composed of freedmen, and that the workmen mentioned in the inscriptions are, as a rule, either demonstrably or presumably of that status. He calls attention to the miserably low rates of wages which prevailed at Delos, in Roman Spain and in Roman Egypt. The *collegia* of the republican period, though no doubt important as social organisations and benefit societies, do not seem to have aimed at improving wages or conditions of labour, as they did occasionally in the late days of the Empire. The success of political strikes under the early republic might well have suggested a policy of wage-strikes; but it was hopeless for the free labourer to demand high wages in a community which commanded an inexhaustible supply of cheap slave-labour of every grade of skill.

H. C. DAVIS

Economics of the Silk Industry: a Study in Industrial Organisation. By RATAN C. RAWLLEY. (London: P. S. King. Pp. xv + 349.)

SOME apology is due to the author for this late notice of a book which appeared at the end of 1919. Even now, the notice can hardly be adequate, for lack of the very specialised knowledge necessary in the reviewer. The book is split up, somewhat arbitrarily one must admit, into Parts. Part I contains chapters on *Early History*, where much curious and fascinating information is collected, and on the *Recent History of the Kashmir Silk Industry*, which a Western reader can merely peruse and thank for. Part II has chapters on the geographical distribution of silk-production (not manufacture), and on the economic environment appropriate to successful production; this second chapter being mainly meteorological.

Part III is headed Production (the first two Parts have no headings), but deals with no process beyond that of reeling. It is mainly concerned with very technical, but most interesting, discussions of the economic factors affecting the rearing and cocoon-producing industries. Some economic points might have been more lightly handled. It was hardly necessary to state at length that "the first important factor that exercises a great influence on the wages of labour in the cocoon-producing industry is the cost of living" (p. 110). One chapter, on silk and the State, would provide some useful modern footnotes to Adam Smith's discussion of bounties: it also contains a full account

of the silk monopoly system of Kashmir, which might also have interested Smith.

Part IV (pp. 197—317) deals mainly with manufacturing and largely with this country. It is rather disappointing to find that, at a point where, for once, one is able to check it (the spun silk industry of Bradford), nothing of special interest, and certainly nothing new, is said. In fact the passage is barely accurate: but possibly Mr. Rawlley did not get into Manningham mills, where experts are not always welcome. There are few footnotes or other means of checking the information in this Part: almost the only authority quoted for several chapters is the Tariff Commission. There are three interesting, if not exhaustive, chapters on foreign competition and tariffs. Part V has a chapter called in the Table of Contents "Commercial Organisation"; which, however, deals entirely with "conditioning." In the text, the heading "commercial organisation" of the Table is wisely dropped. The final chapter is devoted to the marketing and distribution of raw and waste silks. On the manufacturing and commercial side, which will most interest the average British economist, the book is not complete; but it gives a fair account of a little studied industry.

J. H. CLAPHAM

Introduction to Public Finance. By CARL PLEHN, Ph.D., LL.D., Flood Professor of Finance in the University of California. (New York: Macmillan Company. Fourth Edition, 1920. Pp. xix + 446. 8vo. Price 17*s*. net.)

PROFESSOR PLEHN'S work is so familiar to British students that without detailed description or further eulogy we may content ourselves by saying once for all that it is in many respects an excellent handbook for beginners. A fifth edition is, we hope, destined to appear, and in no unfriendly spirit we offer a few suggestions for making it still more useful to the uninitiated for whom it is intended.

Everybody knows the "gawky" boy, who has lost the engaging simplicity of a child without yet becoming a serious adult. The *Introduction* seems to be in this awkward stage of development. The slender outline of accepted generalities which was welcomed in 1896 has grown in a quarter of a century until in size and price it challenges comparison with a manual for advanced students. Its greater bulk offers a wider target for

criticism, but its vulnerability is increased by the addition (often without argument) of decided opinions upon many disputed questions of theory and practice. The young student who swallows like a bolus assertions of this character without qualification, limitation, and reasoned analysis, is in danger of falling into unbalanced dogmatism. "Theirs not to reason why" may or may not be all very well on the battlefield, but ought not to invade the classroom.

The author has evidently tried to cover a great deal of ground in quick time, but the difficulty of making statements which are at once short and accurate has not been very happily surmounted. On page x we are told that "the burden of taxation is light only when the money is well spent." On page 132 "the burden of taxation is light only when properly adjusted to all the shoulders." We know well enough what is meant by these passages, but the beginner, even if in the absence of explanation he can understand them, may wonder how they can both be true. Again it is said that while a tax on legacies "may properly be progressive, it is wholly illogical to impose progressive rates on the entire estate. For that means that the privilege of inheriting $500, say from a million-dollar estate, is worth more than that of inheriting the same amount from a $1000 estate. Although the principle is clear legislators often attempt ridiculous applications." Something more than this is needed to make it intelligible, not to say clear, to the reader. Perhaps for "more" we should read "less."

It is all to the good that a treatise on finance, even though it be elementary, should be fortified by facts and figures as well as by general ideas. But some of the concrete examples, like the list of licence duties in the United Kingdom in 1908, are both out of scale, having regard to the scope of the volume, and out of date. The Customs, Excise, and Inland Revenue figures generally are for that year, which is hardly defensible in this new edition. The statistics of national debts are still older (1904–5). The "latest available figures" are inserted on a separate page at the end; but if earlier detailed statistics were to be retained those for 1914 would have been much more to the point. In France, we are informed, "the most important indirect taxes were leased for 166,000,000 livres, and those collected by the government were 51,500,000 livres," but there is no indication of the date. In more than one passage certain French taxes are said to have produced so much a year "under Necker." As Necker spent several years at the Ministry of Finance between 1776 and 1791 more precision was to be expected.

The bibliography is rather surprising. Some forty works in English, French, German, and Italian are recommended for supplementary reading. A student's time and energy are limited, and it seems almost cruel to turn him on to McCulloch (1863), Goschen (1872), Rau (1850), von Hock (1867), and other old writers without mentioning more significant authorities of recent date. Leading living writers might well replace their antique predecessors. The young American who wants to study the financial history of his country should surely be told of the existence of such American histories as that by Professor Dewey, instead of being guided only to a book written in German half a century ago. The French, German, and Italian lists are far from representative or up-to-date. The path of the beginner might be made more smooth in this respect.

We refrain in this note from comment upon the argumentative portions of the book. So far as they are critical of Professor Seligman's views we may await his forthcoming *magnum opus* which is eagerly expected on both sides of the Atlantic.

HENRY HIGGS

The Financial Organisation of Society. By HAROLD G. MOULTON. (University of Chicago Press. $4·00 net.)

THIS work is primarily intended as a textbook for American students desirous of entering on a career of business or finance, and aims at describing the financial organisation of the United States.

Within these limits the book can be recommended; the various institutions dealt with are well described, the explanations are clear and sufficient. The chapters on the different kinds of banks and money-lending corporations and that on the Federal Reserve System are particularly good.

But the author seems to have thought it necessary to preface his practical business course by a cursory glance at the theory and nature of money. A knowledge of these subjects is no more necessary to the making of a sound commercial man than is a study of hydraulics and the chemistry of water to the making of a good swimmer, and an inadequate treatment of so difficult a subject as money (regarded as a science) only leads to obscurity in the writer and confusion in the mind of the student.

The author sets out by saying that " the significance of the monetary unit may be best apprehended if it is thought of as a

certain definite weight and fineness of metal," but in the next paragraph he explains it as "a sort of language device" or "word symbol," conceptions which are in evident contradiction. In the following section he discusses the importance of the "pecuniary unit" in business administration, in the apportionment of family expenditure and in economic organisation. But he here teaches nothing more useful than the obvious statement that in money transactions money terms are used. From this he goes on to the familiar conception of money as a standard of deferred payment, which he curiously enough puts first, a medium of exchange and a store of value. It may have been well enough to make such dogmatic statements with our knowledge of fifty years ago, but to-day it does not suffice without, at least, mentioning the difficulty of regarding as a standard what is infinitely variable, or of putting into store what is but a relative term. Again he makes the erroneous statement that, before the development of modern banking, wealth was usually stored by hoarding the precious metals. He does not seem to be aware that banking is of high antiquity.

When he deals with the nature and functions of credit, the author says that credit is "synonymous with borrowing," and that "the thing loaned on credit may be either commodities or funds." Putting aside a few trifling exceptions, goods are never loaned, they are sold and the practical and legal effect of a sale and a loan are distinct. As for credit being synonymous with borrowing, one need merely refer to the innumerable circumstances in which relationship of creditor and debtor arises (*e. g.* when a housekeeper pays her books monthly instead of paying cash for each article), to see how misleading this statement is.

Then, again, the author calls a share-certificate a credit instrument, which it certainly is not, at least in the general acceptation of the term.

The treatment of credit is particularly unsatisfactory, and it would look as if the author had not studied the works of the great master of this branch of Economics, H. D. Macleod. He professes to classify Credit in different categories, but what he really does is to classify the different kinds of business which obtain loans—the nature of the credit given being, of course, the same in all cases.

In dealing with legal tender, he repeats the familiar error that "the purpose of legal tender is to legalise the settlement of obligations," and that money has been given the quality of legal tender in order to avoid endless disputes. "Money" has never

been given the quality of legal tender, though some forms of it have. Modern legal tender laws are merely the heirs of similar older laws requiring the public to accept Government coins at their nominal value, and no topic fills more space in the history of money than the efforts of Princes to force their coins on an unwilling public and the ruses employed by the victims to escape the odious obligation. The object of legal tender laws from the time of the Roman Empire (or earlier) was to maintain the value of the Government coins, though nineteenth century legislators may not have known it.

The author would have been well-advised to have limited himself to a description of American financial institutions, a subject of which he is evidently master. The study of Money does not lend itself to perfunctory treatment.

A. M. INNES

The Monetary Outlook. The Garton Foundation. (London: Harrison & Sons, Ltd. Pp. 76. Price 1*s*.)

THE anonymous author of this little book has successfully achieved the task of getting into a small space an adequate and lucid discussion of the most fundamental of our present and future financial problems.

His discussion centres round the part played by the Government and the banks in the creation of cash and deposit currency during and immediately after the War. He shows clearly that the banking system could not have continued for more than a few months to support the inflation of credit if there had not been, in the background, the knowledge that legal tender notes would be forthcoming when necessary.

He traces the continued increase in prices, even though the increase in Treasury Notes and the borrowing from the Bank had ceased, to the fact that a state of rising prices is infectious, and that the banks had not made full use of their power to expand the credit which the existing volume of Treasury Notes was capable of sustaining. He does not discuss the question: had the banks also power to support a larger credit structure on relatively smaller cash reserves in consequence of the extensive banking amalgamations that took place during the War?

He shows clearly the reasons why there is a difference of view between practical bankers and theoretical writers about the operation of inflation during and subsequent to the War. He

illustrates how a loan by the Bank to the Government is an addition to the cash resources of bankers and a basis for a potential increase of deposit currency to six times the amount.

However, the author needs to modify his statement that bankers resent being blamed for contributing to inflation. For instance, bankers, like the Chairman of the London Joint City and Midland Bank, are quite aware of their responsibilities in this respect. His predecessor, the late Sir Edward Holden, stated in his address to the shareholders of the bank, January 1917, that " bankers are great manufacturers of credit."

The significance and dangers of the floating debt are adequately discussed; and the point is emphasised that the statutory limit to the issue of Treasury Notes may be exceeded by the banks running off too many Treasury Bills and investing their proceeds in commercial bills.

He discusses with insight and yet restraint the payment of the floating debt by a funding loan and by capital levy respectively. In the event of these measures being ruled out, he shows the necessity of controlling price fluctuations during periods of expansion and stringency. A *régime* of national paper monies, he states, makes this possible, and agreement among bankers is a condition precedent to such control. Many of us should be slow to give the Government power to regulate fluctuations in general price levels, and should prefer to face the evils incidental to the automatic check of an effective gold standard.

On page 25, where he analyses the operation of a funding loan, should not the statement " and the Government pay that one hundred pounds to my bank," read as, " and my bank pay that one hundred pounds to the Government " ?

T. A. SMIDDY

An Introduction to the Study of Prices, with special reference to the History of the Nineteenth Century. By WALTER T. LAYTON. (London: Macmillan & Co. 1920. Pp. xiii + 194. 7*s*. 6*d*. net.)

THIS book, which was reviewed in this JOURNAL, June 1912, is now reprinted with the addition of a valuable chapter of twenty-four pages on Prices and Currency since 1913. Most of the figures in the original appendices are brought up to date.

The author clearly shows an accurate insight into the essential factors that gave rise to the unprecedented price movement of

the last five years, and an accurate appreciation of the various theoretical principles involved.

The same laudatory remarks made by the reviewer of the first edition might, indeed, be also applied to this chapter. In a brief space one obtains the main causes and statistics of price movements during this period in Great Britain and foreign countries. The author discusses the action of the Government control on prices, and describes the different methods by which this control was effected; also, why this control is more effective during the War than in normal times. In war time the system of control was complete, and prices ceased to perform their normal function of determining into what channel the labour and capital of the nation should flow. This was determined by the programmes of production, assigned by the main purchasing departments of the Government.

He correctly shows the reasons why it was possible during the War, and until towards the latter half of 1920, to fix wages by reference to the index numbers of prices of the cost of living of a typical working-class family, and why there has been since then a revival of the principle of what the industry could afford to pay. Those having experience of the working of wages boards realise the difficulty of choosing between the one or other of these two criteria, or adopting a partial application of both. In many cases where the employers (when the cost of living was rising), formerly invoked the principle of what the industry could pay, they are now invoking the principle of the cost of living in order to justify a falling wage.

He rightly alleges that the balance of argument is in favour of getting back to a lower level of prices, and that our currency policy should be again to revert to the gold standard. We shall then have an automatic means of removing the currency from the arbitrary control of Governments. He does not describe how this policy could be carried out, which is not quite within the scope of his book.

His statement that "At the worst, the depreciation of the dollar, during the Civil War, only reached 40 per cent.," seems less than that given by recent American writers on the subject. Professor W. C. Mitchell in his *Gold, Prices and Wages under the Greenback Standard*, p. 295, states that the maximum depreciation was registered on July 11, 1864, when the greenback dollar gave a gold value of only 35·09, and gold dollars were quoted at a price of 2·85 greenback dollars.

T. A. Smiddy

Is Trade Unionism Sound? A Suggestion for outflanking the Power of Capital. By J. H. BUNTING. (London: Benn Brothers. 1921. Pp. x + 98.)

MR. BUNTING never actually says in so many words whether he does regard Trade Unions as sound or the reverse, but as he advocates a free market for labour and the abolition of collective bargaining, it is clear that he has decided misgivings on the point. It is only fair, however, to say that he has no feelings against Trade Unions as such, and that his proposals are generally made in the interests of the workers. The argument of the book, very briefly summarised, is as follows: The supply of capital should be greatly increased. The effect of this would be to bring down the rate of interest, and the share of the national income which goes to capital would, the author thinks, be diminished both absolutely and relatively. He realises that capital has to be produced before it can be increased, and suggests that the workers should accept in a free labour market the highest wages they can get, and set to work to increase production. It is admitted that this would involve hardship to the workers, but only for a short time, and wages, owing to the demand for labour which would be created through the cheapening of commodities, would very soon be raised above the level which could be obtained by collective bargaining. For if the workers would accept the lower wages to begin with, prices would be reduced. If only the workers would agree to this programme, we could have much higher wages, much lower prices, and all would be well.

The argument is based on more than one economic fallacy, for the author appears to hold that any encroachment made by the workers on the income which goes to capitalists must of necessity be met by the community in higher prices. This does not follow. Nor does it by any means follow that a fall in the rate of interest diminishes the absolute share of the national income obtained by capitalists. But even if the argument were beyond criticism on economic grounds, Mr. Bunting's programme does not fall within the range of practical politics. The author altogether underrates the importance of the human factor. Working men and women are not going to submit to a reduction in their standard of life if they can help it, even for a few weeks, on the purely theoretical supposition that by such action they may be able to raise it greatly in the near future—especially when they see people all round them squandering wealth on

superfluities. If Mr. Bunting would put his case before a Trade Union audience, he would probably soon be convinced of this, and he would also have to meet a good deal of criticism of his economic argument.

H. SANDERSON FURNISS

Trade Unionism. By HENRY H. SLESSER. Second Edition, revised. (London: Methuen. 1921. Pp. viii + 136. Price 5*s*. net.)

IT seems rather unfortunate that this book is published as a second edition, for it is practically a new book—very different in character from the volume published in 1913 under the same title, and in some respects a better book. Mr. Slesser regards the present work as a critical study and not a textbook (p. vii). His book, while it certainly does contain some rather incisive criticism of Trade Union methods and policy, as well as of Trade Union officials, nevertheless travels once more—and rather hurriedly—over now well-known ground which has been fully explored by Mr. and Mrs. Webb and Mr. Cole. What Mr. Slesser has to say with regard to the legal aspects of Trade Unionism (as to which he has a wide and practical knowledge) is much the most valuable part of the book. Unfortunately, he deals very slightly indeed with the economics of Trade Unionism, less than five pages at the end of the last chapter being devoted to this part of the subject, and even this meagre discussion is not particularly satisfactory. For instance, has there been "a remarkable decline in the interest shown in the purely economic aspects of Trade Unionism" (p. 124)? Have the Guild Socialists abandoned the purely economic argument (p. 125)? Have the lugubrious prophecies of Malthus become the monopoly of Dean Inge (p. 125)?

Mr. Slesser appears to be one of those people who wish themselves back in the Middle Ages, and as a means of getting there, is apparently willing to advocate a strike against the use of machinery (p. 22). He seems to imagine that morality and justice flourished before and have completely disappeared since the Reformation—a point which perhaps lies beyond the scope of the ECONOMIC JOURNAL. However, Trade Unionists will be glad to know that "the only secular movement which has successfully challenged post-Reformation injustice has been the work of the uneducated manual labourer" (p. 129).

The book shows signs of having been very hurriedly written,

and with a little more revision the American Civil War would not have been called "the War of the American Independence" (p. 25), Tom Quelch would have been Harry Quelch (p. 84), and several almost meaningless sentences scattered up and down the book would have been put into shape.

H. SANDERSON FURNISS

Wealth and Work. By GEORGE W. GOUGH, M.A. (New Era Library.) London: Philip. Pp. 260.

THE author of this little book is thus described in a note prefixed to one of his earlier studies by the publisher. "The author is the son of a railway servant. . . . Mr. Gough's greatest pride is that he is 'of the people,' and that he can speak to the workers as one of themselves." He speaks to them, indeed, both persuasively and sensibly; not like the "foolish people who want to get the votes of people more foolish than themselves," as he describes the preachers of revolution. Referring to their doctrines he says well: "Suppose that at a given moment every capitalist in England was knocked on the head . . . the constantly necessary supplies of new capital would be affected. They would be killed off too. Capital comes into existence as the result of human efforts. All the people capable of making these efforts have been killed. . . . Is it rational to suppose that the murderers would suddenly be endowed with the practical economic good sense of their victims? . . . Those who would put an end to the present system of allowing a man to own as much capital as he can get, and to use it in his own way for his own advantage, do not tell us very clearly whether they think they can replace these two motives (the joy of exerting one's powers and the prospect of pecuniary profit), which now give society the services of efficient managers of giant concerns by other motives just as good from the social point of view. They rather slur over this point, but it is the one point that matters." With reference to the motives of workpeople, this man of the people teaches: "reforms which suppose that a man will work better for the State or a Guild than he does for a private person, are built out of hopes and founded on dreams."

The booklet is an economic gem, of which the value is enhanced by the setting of a lucid and attractive style. Familiar truths are brought out with new clearness by apt illustrations, often taken from literary sources. Thus the efforts and sacrifices which constitute cost of production are illustrated by Robinson

Crusoe's manufacture of a tobacco-pipe. When David Balfour, in R. L. Stevenson's *Kidnapped*, supported himself on a desert island by knocking limpets off a rock, the stone which he used for that purpose was his only capital. The old law of partnership is illustrated by the incident that Owen, in *Rob Roy*, was put in the Tolbooth for the debts of the firm of Oshaldistone and Tresham, in which he, their clerk, had invested his small savings. We expect a flavour of literature in the work of one who is distinguished as a novelist, the author of *The Yeoman Adventurer*. As the model of that delightful romance he seems to have taken, not unsuccessfully, the Waverley Novels. This is not the place to express admiration for the noble character of the chivalrous yeoman. But it is not irrelevant to remark that to follow in the steps of Sir Walter, even at a distance, implies a wide and deep knowledge of human nature—no slight part of an economist's equipment.

In the attempt to popularise economic science, Mr. Gough has many rivals, past and present. There is Bastiat, and before and since his time many an instructive tale illustrating economic truth. But Mr. Gough's primer has the peculiar merit of presenting the more recent refinements of economic theory. The modern doctrine of *margins*, for instance, informs his work. Now we have the picture of the hungry iron-moulder, whom his wife helps again and again to meat-pie. "During the meal there has been a marked change in the man's attitude to the meat-pie." Again, the employer takes on man after man up to the point at which the addition to the output made by the last man approaches what the man is to receive as wages. The remuneration of the *entrepreneur* is remarkably well analysed. Suppose that "every economic factor that contributes to the business has been fully remunerated at the current market rate, and the total is £5000," and that the capitalist employer finds that the sum which he can transfer to his private account is £6000. Of what service is this extra £1000 the price? It is "the price which society must pay for the benefit which it receives from services of go-ahead men. . . . Enterprise, when first undertaken, rightly gets an income of its own. But enterprise is easily imitated, and so in time it loses its reward. It is a disappearing income."

Having regard to the substance and the style of this little book, we think that it may compete with a fair chance of success for the distinction of being the best introduction to the study of Political Economy.

F. Y. EDGEWORTH

Coal, Iron and War. A Study in Industrialism, Past and Future. By EDWIN C. ECKELS. (London: G. G. Harrap & Co., Ltd. Pp. ix + 375. Price 12*s.* 6*d.* net.)

THE matter of this book is wider than its title. It not only deals with other products and metals, as well as with the coal and iron industries, but examines the development and the future of the whole industrial system. In the author's words, "stress is laid upon coal and iron, not merely because of their basic character and importance, but because such limitation will aid in giving definiteness to the study." In the second part of the book, for instance, which deals with the Material Bases of Industrial Growth, he deals also with petroleum, natural gas and water power, and with chemical and structural materials. Whilst written primarily from the American standpoint, the book treats industrial development in all countries.

The first of four parts into which he divides the book contains an admirable sketch of The Growth of Modern Industrialism. Separate chapters are devoted to the chief industrial nations, and points of comparison and contrast between them are well set out. Specially interesting is the analysis of how Great Britain and the United States, starting level in 1760, and with differences in their times of development, again reached a rough equality about the close of the nineteenth century. Attention may also be drawn to the analyses of the rates of growth of population in different countries. The general treatment is preceded by a good concise summary of the coming of the Industrial Revolution. The author perhaps underestimates the extent to which the first half of the eighteenth century was preparing for the change; and there may be over-emphasis to assert that "within a half-century (1760 to 1810), the old type of British industry was to be swept completely away." The part ends with a brief summary of the "trend and effect" of the new industrialism.

In the second part, The Material Bases of Industrial Growth, various products and industries are taken separately, and their position and future prospects analysed. Special attention is paid to the possibility of exhausting the supplies of materials. In a reasoned argument, the author does not appear to have any immediate fear of exhaustion, but anticipates increase in cost of coal and iron within a comparatively short time. The position as to possible substitutes for coal is carefully analysed. The conclusion is that the supplies of petroleum and natural gas are more limited than is often supposed, and that "hydro-electric"

developments are likely to be supplementary to the use of coal and not in competition with it, and therefore cannot go far to economise the coal supply. In these respects the author may perhaps be over-cautious, but his treatment appears to be based on wide knowledge and should be a good corrective of over-sanguine anticipations. He gives reasons for believing, on the other hand, that the consumption of coal and iron will be less in the future than in the past. In the concluding part of the book, he anticipates the growth of strong self-supporting national states and less localisation of particular industries in different countries. In consequence of this, "instead of using one-third of our coal merely to carry goods up and down the earth, we will be able to use this fuel in more directly economic ways." In addition, attention is drawn to the unequal distribution of the chief minerals and metals between different nations.

The third part of the book, The Causes and Effects of Industrial Growth, opens with an interesting analysis of its chief factors, which are divided into growth of population, increased consumption, and improved access to markets, one or other of them accounting for the whole development. A subsequent chapter deals with invention and discovery in different branches of industry and trade, and has an excellent chronological table of discoveries in parallel columns. Other subjects are prices, the share of the worker, the development of the corporation, and legislative helps and hindrances.

The book terminates with a treatment of The Future of Industrialism. The author's conclusions are in the main optimistic. Industrialism has produced increased wealth, and a higher standard of comfort, and, provided the losses due to the late War can be made good, should continue to do so. The author provides an interesting analysis of the cost of the War. Development will also be on the lines of democracy and strong national states. The least favourable outlook is in regard to future peace. The physical resources of the world are not limited and are unevenly distributed between nations. Pressure of those which are less well endowed, therefore, and have a lower standard of living, will be liable to lead to wars or intensified economic competition, unless the world " can arrive at some better method than war of settling economic disputes and difficulties." These final conclusions are preceded by an analysis of the future and rate of growth of industry and of world competition. There is also a chapter on the growth of political beliefs.

Mr. Eckels has done an excellent piece of work, covering a

wide field, in an important subject; and in the space at his disposal, he has treated it thoroughly. His method of taking and analysing each question in turn leads to a clear statement of the position; and the parts are correlated to produce a coherent and consistent whole. The treatment is illustrated by adequate, but not excessive, figures and tables. There are a number of charts, but these, on the whole, are not so good as the other illustrative matter. The whole book, however, is a valuable contribution to history of economic development, and seems suited to form a basis for a wider and more detailed study.

N. B. DEARLE

Corso di Economia Politica. Professor ACHILLE LORIA. (Second Edition, 1919. Bocca, Turin. Pp. 761.)

Verso la Giustizia Sociale. Vol. I. Nel Tramonto di un Secolo (1880–1904). Professor ACHILLE LORIA. (Third Edition, 1920. Società Editrice Libraria, Milan. Pp. 614.)

SOME University teachers of economics may justly be charged with publishing too little and too seldom. But Professor Loria is not one of these. Indeed I should guess that no living economist of international reputation has published more, or more often, than he, who from his watch-tower at Turin has been radiating new lights over an ever-widening field of study these many years. The two new editions before us are fresh evidence that his writings are widely read, and the number of his books which have been translated shows that it is not only an Italian public to which he appeals. If the general opinion which his fellow-economists hold of him were canvassed, it would be found, I think, that his most conspicuous qualities would be held to be, not a sound and steady judgment, nor even a serene consistency, but a daring originality and suggestiveness, combined with much erudition.

What most sharply distinguishes his *Corso* from other expositions of general principles, and what he himself regards as its most fundamental doctrine, is his theory of population. He maintains that "the procreative activity of man is the chief factor in progress." Increase of population, in his view, has been and still is the dominant stimulus to invention and economic improvement. For it is the insufficient productivity of the soil, which forces mankind, on the one hand, to migrate to virgin lands and, on the other, to improve methods of cultivating lands

long settled. It is the pressure of population, which has been the root cause of all the larger historical changes in social organisation, from primitive communism to slavery, from slavery to serfdom, from serfdom to modern capitalism, the latter only assuming its essential character when all available land is appropriated, so that no " free land " remains as an alternative source of livelihood to work for wages. The history of the United States illustrates this most clearly, and colonial history in temperate climates is the key to all economic history. Individual property in land has succeeded common property because it is more efficient, and the spur to the attainment of greater efficiency has been the growing pressure of population. The history of the English enclosures illustrates this.

But is there then, we naturally ask, no danger of over-population? Professor Loria replies that there is no evidence of either the fact or the fear of over-population in antiquity, in the Middle Ages or in the Renaissance. Towards the end of the eighteenth century a profound change in opinion took place and the fear became widespread. But it was groundless. The limits to agricultural production envisaged by Malthus have been removed by that very pressure of population which he dreaded, but which led, on the one hand, to better systems of land tenure and better methods of cultivation in old countries and, on the other, to the rapid development of new countries. Again, mankind is less naturally prolific than Malthus supposed, fecundity being reduced by improved economic conditions and, most of all, by the diffusion of small landed property.

Professor Loria passes in review various post-Malthusian theories of population, including that of Doubleday, which he rejects, to the effect that fecundity varies inversely with the quantity of food consumed. This false hypothesis, Professor Loria informs us, had been invented centuries before to account for the childlessness of Charlemagne, which was commonly ascribed to his obesity. He attributes some truth, however, to Marx's theory of relative over-population owing to the displacement of men by machines. There is to-day, in his opinion, no danger of an excess of population relatively to subsistence, but there is often an excess relatively to capital productively employed, with the result that wages are frequently insufficient to purchase subsistence. This relative excess is further manifested by the existence of unemployment caused by trade slumps, themselves caused by the constant tendency of the rate of profits to fall below the minimum necessary to keep capital productively

employed and to secure its continued accumulation. Professor Loria's cure for this relative over-population and for unemployment is, therefore, increased investment of capital in industry and its withdrawal from unproductive uses. But the obstacle to this solution is the tendency, which he holds to be inherent in modern capitalist industry, for the rate of profits to fall. He is convinced, however, that a check to the growth of population would be no solution and is vehemently opposed to neo-Malthusian practices, which cause "marriage to degenerate into monogamic prostitution." Indeed, he maintains that "the more rapid the rate of increase of population, the more rapidly will social evolution proceed" (and apparently this evolution is judged to be ethically desirable), "while every diminution of population will be accompanied by a regression towards economic forms already passed, and a stationary population will mean a stationary civilisation."

But is there not, the reader may ask, any eventual limit to the desirable increase of population? Professor Loria replies that there is, but it will be reached only in the far future, when the secular pressure of increasing numbers has at length accomplished its beneficent work and, having compelled us by force of evolution to an escape from all our troubles, has transmuted the modern capitalist system into something which he does not here elaborate.

It would be easy to criticise this theory in detail, its logical gaps and inconsistencies, its fatalism, many of the alleged historical verifications, the author's conception of unproductive capital, and so forth. But no such criticisms would detract from its artistic qualities, nor diminish the comfort which it will bring to the National Council for Public Morals and to the ghost of Mr. Roosevelt.

Verso la Giustizia Sociale, "in the sunset of a century," is a volume of miscellanies. In the introductory essay which gives its title to the book, Professor Loria suggests that remuneration according to effort is the principle of social justice, which most closely accords with our "spontaneous intuitions." This principle requires for its application two conditions, first, that everyone shall reap the full fruits of his own efforts and, second, that he shall be free to change the direction of these efforts at will. These conditions will be satisfied by a form of social organism, whose "cells" will be voluntary co-operative associations, "in which the worker who accumulates capital and possesses land receives the same income as the worker who neither accumulates capital nor possesses land; in which the product of labour is attributed to labour and to labour only; in which there exists

neither profits of capital nor rent of land, nor permanent inequality in the amount of capital accumulated by individual producers, nor permanent disparity of conditions; in which value is measured by labour, population corresponds to the means of subsistence and taxation is the exact equivalent of the public services which the contributor receives. These are the essential outlines of the final form of social economy" (the "limiting" form, in the mathematical sense), towards which, under the pressure of increasing population, evolution is tending. To this conception which, as Professor Loria tells us, he has developed at much greater length elsewhere, only a passing reference is made in this volume, and a discussion of it does not, therefore, seem to be called for here.

The other essays indicate the wide range of the author's reading and studies. Those who attach importance to the origin of economic doctrines and to the settlement of rival claims to priority in their enunciation, will be interested to find Professor Loria contending that on many points of theory Italian economists were early on the scents which Englishmen only picked up later. Thus Botero, a Piedmontese Jesuit, had published a warning on Malthusian lines in 1588, while Giammaria Ortes, a Venetian monk, forestalled Malthus by eight years in a much more detailed book of "remarkable modernity." (The problem of population seems to have a special fascination for persons in holy orders.) Professor Loria further maintains that the tendency to diminishing returns in agriculture was first propounded by Antonio Serra in 1613, and that Beccaria anticipated by seven years Adam Smith's discussion of the division of labour. But these pioneers have not secured their due recognition, because the first half of the nineteenth century, when the English classical economists were blooming, was a period of sterility in Italian economic thought. It is also interesting to read that Turgot said, concerning a project of progressive taxation which was submitted to him, "il faut exécuter l'auteur et pas le projet," thereby setting the tone for most of the nineteenth-century discussion of this subject, though Professor Loria claims Solon, Cato the Elder, Macchiavelli and Montesquieu as earlier supporters of the principle of progression. In the concluding essay, written in 1902, Professor Loria asks the question, "Are we better than our forefathers?" His answer, in spite of his belief in "social determinism" and inevitable evolution towards a better social order, is pessimistic, and the new edition brings the answer up to date by a final footnote on the atrocities committed during the latest and greatest war.

HUGH DALTON

La République des Soviets (*Bilan Économique*), par Simon Zagorski. (Paris: Payot, 1921. 1 vol. 8vo. Pp. 352.)

Of the many books to which the Bolshevist Revolution has given birth, we have found that of M. Zagorski, Professor of Political Economy at the University of Petrograd, at once the most interesting and instructive.

The whole economic policy of the new Government—industrial production, lighting and transport, labour and wages, finance and land policy—is set forth in detail. We clearly see each successive stage of socialisation: first that of the land, then of the banks, then of shipping, of the factories, of the railways, etc. But we also see what difficulties the Government experienced in carrying this socialisation into effect. It tried it first in the form of management of workmen's committees, but was not long in discovering that this system was killing the economic life of the nation. Each workmen's committee managed the particular factory or section of railway assigned to it, without the slightest regard for the public interest. Production dropped to one-sixth, and in certain industries to one-tenth, of the normal output. Railway traffic came almost to a standstill.

Control was then transferred from the workmen to the central administrative council, but thereby socialisation merely became State officialism, more bureaucratic than under the Tsar. The workers were subjected to a system much harsher than that of Capitalism, comprising a longer working day, fines, the prohibition of strikes, bonus wages to stimulate work and, as a last resort, a decree making labour compulsory—which latter, however, could not be put into operation.

This second phase of the system does not appear to have yielded any better results than the first. The workmen left the factories in crowds, some to return to the country to find bread to eat as well as independence, others to enter the offices of the Soviet Government to live as parasites, thanks to the preferential food cards liberally dealt out to all the Government's supporters.

Thus the working population is beginning to disappear, the towns are becoming depopulated, industry is dying and, according to the author, Russia has again lost all the industrial development which she had accomplished and will relapse into a purely agricultural economic system, and that of the most retrogade

nature. Bolshevism, moreover, will have killed Russian socialism, since with the disappearance of the working class it will have lost its sole support.

In the country districts, also, it has succeeded only in preparing its own ruin. The so-called socialisation of land, in fact, has in no sense led to community of ownership; on the contrary, it has had the result of creating a peasant class, as did the French Revolution—a peasant class, moreover, not less passionately wedded to the right of individual ownership. Nevertheless the peasants support the Bolshevist Government, but only from the fear lest a return of the old *régime* should compel them to give up the land of which they have taken possession. Agricultural production, moreover, is scarcely in any better plight than industrial production, for the peasants, in order to evade requisitions, produce only sufficient for their own needs.

It is not only a class of peasant proprietors to which Russian communism has unexpectedly given birth, but a new middle class such as did not formerly exist in Russia! In fact a host of peasants and traders, enriched with spoils derived from the aristocracy and bourgeoisie, are only awaiting the right moment to take their place.

Such is the rough sketch which M. Zagorski gives us. We are not in a position to say whether it is a little distorted or not. Hitherto we have had only books criticising the Bolshevist rule; we should like to read one signed by a Bolshevist. Perhaps it would explain the mystery whereby, in spite of all the distress, in spite of famine and financial ruin, the Lenin regime still goes on and will presently have completed its fourth year, which is longer than the duration (1792–4) of the Terror in France.

M. Zagorski's book does not assign to the co-operative societies a place proportionate to the very important part they have played in the history of the Russian Revolution. It is the only organisation which has been able to hold its own against the Bolshevist Government; and we know that the Government, finding itself powerless to suppress or absorb them, finally made them the working mechanism of the national economic system by compelling the whole population to belong to them.

CHARLES GIDE

Economics for Beginners. By M. C. BUER. (London: Routledge & Sons. 1921. Pp. 220. 4*s.* 6*d.* net.)

THIS textbook contains "all the usual features," *plus* some that are rather less usual. Of the latter, the most welcome are the chapters which deal with rationing, profiteering and maximum prices, and a short discussion of property systems. Theory follows practice much as wages follow prices; except that in the former case any shortening of the "lag" is more generally welcomed. To-day new experience loudly demands modifications of emphasis (and in a less degree of principle) in established doctrine. Miss Buer contributes a little in this direction. She might advantageously have contributed more by showing some relation between profiteering and monopoly profit, and by so wording her exposition that the reader does not go away with the rooted idea that a monopolist or an *entrepreneur* (after a full discussion of the functions of the *entrepreneur* we naïvely conclude that "in company trading it is rather difficult to point to any one as the *entrepreneur*") is necessarily an individual, or that monopolistic influences upon prices are, after all, only a parenthetical exception to the *régime* of competition.

The book is substantially Marshallian; and in the main lucidly Marshallian. It comprises discussions of money and the foreign exchanges, as well as a few words on national and local taxation. Written in the first instance for the upper forms of secondary schools, it perhaps attempts too much. A narrower field more vividly painted might have served the purpose better. Miss Buer's expositions are certainly of very unequal difficulty.

BARBARA WOOTTON

Principles and Methods of Industrial Education. By W. H. DOOLEY. (London: Harrap & Co. 1921. Pp. xi + 257.)

MR. DOOLEY deals in this volume with the immense problem of industrial education to which the collapse of the apprenticeship system under the weight of modern industrial conditions has so largely contributed. In the United States, of which he primarily writes, the facilities for technical education are varied—technical colleges, evening schools, industrial departments in high (or secondary) schools, day industrial schools, and part-time continuation schools. Unfortunately there is a general tendency to ignore the needs of the average workman and the average boy,

and to concentrate on the more abstract-minded for whose educational needs it is both easier and less necessary to cater. It is, however, the active, curious, non-intellectual, average boy who must provide the bulk of industrial recruits. His needs, Mr. Dooley thinks, will be best met by "short-unit day courses," in which the student will be able to learn exactly what he wants to know and nothing else, and will see the bearing of his studies upon his work at every turn.

Mr. Dooley has chapters upon the principles of teaching and learning in general, and upon the teaching of technical subjects in particular; he believes that the normal adolescent is not logically-minded, and that the presentation of knowledge to him "arranged in a series according to the preconceived principle of a teacher or educator who has mastered the subject" is unnatural and a violation of psychological principles. The book will be of value principally as a manual for training colleges and technical teachers. It is a pity that the author's rather dull style does not do justice to his knowledge and experience.

BARBARA WOOTTON

Elementary Economics. By Prof. T. N. CARVER. (Boston: Ginn and Co.) 1921. Pp. 400.

PROFESSOR CARVER has printed the Athenian Ephebic oath as a frontispiece to this textbook, which he apparently intends as a contribution towards educating the young in the spirit of Athenian patriotism, coupled with an intelligent appreciation of the principles upon which modern industrial prosperity depends. The first eight chapters, which are devoted to an exposition of what makes a nation prosperous, lay great stress upon the importance of the quality of the people. In fact a nation can be very nearly as prosperous as it likes, provided that it has knowledge, industry, thrift, honesty, sobriety, courage, fidelity, eagerness to learn, obedience to law, and willingness to co-operate. At the same time geographical advantages must count for something; and some of the best chapters in the book are those which explain what Nature has contributed to the wealth of the United States. These are supplemented by maps and have the great merit of bringing the student's intelligence to bear upon the why and the wherefore of some of those everyday facts whose very familiarity has probably bred indifference. The next two parts of the book, dealing with the various ways in which mankind

economises labour and gets a living, are more vivid than the vague contrasts of primitive man and modern industrialism which most elementary textbooks afford. They are, moreover, accompanied by attractive photographic illustrations of different ages and stages of the business of getting a living. We are next introduced to matters rather more theoretical—value and exchange, currency and banking, and the theory of distribution, all treated in an orthodox manner. The chapters which cover this ground are distinctly more difficult than the rest of the book, and in parts rather dull. In conclusion Professor Carver treats us to some discussion of the economics of consumption, to which he believes that insufficient attention has been paid; and disposes of Communism, Anarchism, Socialism, The Single Tax, and "Constructive Liberalism" (his own creed) in less than fifty pages. In so confined a space it is, no doubt, impossible to be both elementary and profound. The book would certainly be better without these chapters on the "isms." It is otherwise generally suitable for the elementary student of not too mature development.

BARBARA WOOTTON

Entstehung von Staat und Familie. (Origins of State and Family.) By RICHARD THURNWALD. (Berlin, 1921. Vereinigung für vergleichende Rechtswissenschaft und Volkswirtschaftslehre. Pp. 26 gr. 8.)

IT is well known that races of aboriginals in various countries show different states of intellectual development, and that a distinction can be made between higher and lower primitive peoples. Investigations made by Prof. Thurnwald among peoples of the South Sea Islands have led him to assume that a certain parallelism of civilisation prevails with the early forms of government, and that there are three structural types to be distinguished as general stages of social and political development.

The first is a homogeneous type (Papuan), the clan showing no social stratification at all. Only the biological differences of age and sex mark certain clusters within the community. The old men are the leaders of the clan, which is nomadic from time to time within narrow limits. The people live on the fruits of the territory which they claim for themselves; men go hunting and trapping, women plant gardens. All work is done in com-

pany, but everybody is the owner of what he has planted or manufactured. There is individual, sometimes successive, marriage, often with a complicated system of prescriptions or interdictions. The family depends economically on the clan. Necessary goods (*e. g.* stone or shells for axes or beads, wood for bows or arrows) are acquired from other clans in exchange for surplus production in, say, yams or pigs or tobacco.

The second type (Melanesian) is enlarged by the mingling of two different races. The invaders settle for themselves in the empty space left between the dwelling-places of the first aboriginals, and their villages comprise, for greater security, several federated clans. The marriage regulations are less severe. Slaves and polygyny, especially in vogue amongst the chiefs, lead to social and economic distinction. The leaders of the raiding expeditions hold personal and economic power; spiritual power becomes monopolised by wizards. The beginning of a social differentiation is here manifest. Exchange of commodities takes place on a larger scale, as the allied clans gather at feasts. Even markets and money in primitive forms occur.

The third type (Polynesian and Mikronesian) shows a rigid system of castes, with marriage laws based on social distinctions. The patriarchic family, emancipated from the clan, is economically independent. An upper class of landlords dominates the people, who owe tribute of their work and toil to the men of higher rank. A much larger area is in social contact, in "commercium" and "connubium" with each other, than in any of the lower types. Implements and utensils show a higher degree of perfection; a number of crafts are located in special villages. Even agriculture, fishing or—in other countries—breeding of cattle or sheep, etc., is performed by special groups of people. The leading castes are, as a rule, soldiers or priests, and live on revenues from the dependent population. The differentiation into various occupations promotes trade. Money, often of different kinds, circulates, special forms being used for hoarding.

This last type of political organisation comes close to the state of things we encounter in the early history of Egypt and Mesopotamia. There are vestiges of an aristocracy which ruled the country (as the temple-organisations or the "nobles of the South" in Egypt). In historic times we see them gradually replaced by officials, depending on the one despotic ruler of the vast empire. The economic structure here is marked by the masses of slaves and more or less dependent people. A complicated system of taxation collects the products, stores them up,

and, by a scheme of rewarding and paying, the income of the depots is distributed to the officials for consumption. But, besides, there exists trade and exchange of goods as well among the official as among private individuals. Babylonian and Assyrian commerce shows a high degree of development.

These types, indicating characteristic stages of political and economical development, draw attention to the fact that the socialised area covered in the consecutive political bodies becomes always larger.

E. SCHWIEDLAND

La Cuestion de las Tarifas y el Problema Ferroviario Español. By Professor L. OLARIAGA. (Madrid: Calpe, 1921. Pp. 243.)

THIS book is based on a series of articles written by the author for a popular newspaper about the railway problem in Spain. He takes the opportunity of adding *in extenso* the various Bills and ministerial resolutions which relate to the central question. The last chapter deals with the methods adopted in foreign countries in order to solve the same problem. The importance of the book lies in two directions. First, it contains complete information about the failure of the railway company to display financial strength as great as is required to improve and enlarge the defective railway system of Spain, and shows how this financial problem has been aggravated by the price revolution all over the world. Secondly, the book is a contribution to the pressing problems of economic reconstruction and nationalisation of railways. The railway problem has become a central problem of our practical economy; just now more than ever as a result of the projects presented to the Parliament by the Ministro de Fomento, Mr. Cierva. The more necessary is this book for those who seek accurate information on the question.

FRANCISCO BERNIS

Salamanca.

NOTES AND MEMORANDA

A Gold-weight as the International Unit of Value

It is important for the trade of the world that those national currencies which have gone off the gold standard should be co-ordinated with it again. In a few of these currencies it may become possible within a reasonable time to make the paper money convertible to gold at its nominal parity; but in the great majority of them the convertibility would have to be arranged by revaluing the paper money at some lower rate. Whatever the rate in any particular case, the most convenient method would be for the Government to adopt some specified weight of gold as the unit for revaluation, and to fix the rate of revaluation in terms of the amount of its paper money which it is prepared to take in exchange for that gold unit. That gold unit would thereafter become its unit of value; and all countries adopting the same gold unit for their revaluations would thereafter have the same unit of value. The revaluation of the depreciated currencies along these lines would thus afford an opportunity for different nations to adopt the same weight of gold as their common unit of value; and the question arises what weight of gold would be the most convenient for this purpose.

The gold-weight here suggested for this purpose is 1½ grammes of pure gold, which, besides linking the monetary unit with the metric scale in a convenient way, is almost identical with the weight of pure gold per dollar in the gold coins of the United States, being a little less than the weight of pure gold per dollar in them as issued from the Mint, and a little more than the weight of pure gold per dollar in them at their least-current weights. The selection of pure gold would take the unit of value clear of any variations in alloying, and the expression of value directly in terms of gold-weight would simplify the system. The suggested weight of gold—*poids d'or*—might be called the *dor*. The dor would not mean a coin; it would mean 1½ grammes of pure gold, and any multiples or fractions of the dor would mean these multiples or fractions of 1½ grammes of pure gold. Coins

would be minted containing convenient multiples of the dor; but the terminology would denote weights of pure gold, and would connote the coins only in so far as they contain these weights of it.

In the dor-coinage the principal coin (to which any others would be proportioned) would be one containing 5 dors or 7·5 grammes of pure gold. If one-ninth of hardening alloy were added to bring the fineness to nine-tenths—the most usual fineness—the weight of this coin would be 8·$\dot{3}$ ($8\frac{1}{3}$) grammes. This weight, however, would be the least weight at which the coin would contain 7·5 grammes of pure gold; and the mint-issue weight of the coin would have to be slightly greater, so as to allow a slight margin for wear. If that margin were 5 parts per 1000—which is the most usual allowance—the coin as issued from the Mint would weigh 8·375 ($8\frac{3}{8}$) grammes and would contain 7·5375 grammes of pure gold. So long as it contains at least 7·5 grammes of pure gold—as evidenced by its coin-weight not being worn to less than 8·$\dot{3}$ ($8\frac{1}{3}$) grammes—it would be accepted as containing 5 dors; but if it were worn to less than that weight, or if it were defaced, it would no longer be accepted as containing 5 dors, and would be sent to the Mint or to the melting-pot as bullion.

On this system the gold coinage would be automatic and self-adjusting, without any technicalities as to legal tender or least-current weight. There would be no danger of bad coins driving out good, because any coin that did not contain its professed weight of gold would be rejected. For the coin-weight to be a test of the gold-weight, the nine-tenths fineness—if that fineness were adopted—would have to be the minimum fineness for every coin issued from the Mint. The expenses of gold-minting might be met by the Mint paying a certain weight of gold coin in exchange for a certain weight of bullion, the proportions being so adjusted that the gold-weight of the bullion would exceed the gold-weight of the coins by an amount sufficient to cover the slight cost of the minting. The coins of the various countries adopting the dor system would be sufficiently varied in design to show in each case the country of origin; the Government of any one country, if satisfied as to fineness and certain other features, might allow the dor-coins of any other country to circulate within its jurisdiction as far as people are willing to accept them; and the development of this practice might lead to the minting of gold coin under International arrangements.

The proposed 5-dor coin would correspond closely with

certain gold coins which experience has shown to be convenient units, as may be seen from the following table, in which, of course, each of the coins is considered as a standard coin, apart from any question whether the particular country has maintained the convertibility of its paper issues. The coins are arranged in the order of their gold-weights.

Comparative Table of Certain Gold Coins.

Gold Coin.	Coin-weight Grammes		Fine.	Gold-weight Grammes		Approximate Mint-parity Values.			
	as issued.	least-current.		as issued.	least-current.	£	s.	d.	$
5-dor coin ...	8·375	8·333	9 10	7·537	7·5	1	0	7	5.01
United States $5	8·359	8·317	,,	7·523	7·485	1	0	6½	5.00
Mexico 10-pesos	8·333	8·292	,,	7·5	7·462	1	0	5¾	4.99
Japan 10-yen	8·333	8·287	,,	7·5	7·458	1	0	5¾	4.99
British sovereign ...	7·988	7·938	11 12	7·322	7·275	1	0	0	4.87
[1] France 25-francs ...	8·064	8·024	9–10	7·258	7·222		19	10	4.82
Germany 20-marks ...	7·965	7·925	,,	7·168	7·133		19	7	4.76

The dor would be decimalized like the dollar, and the scheme of dor-decimals as token money may be illustrated thus :—

Table of Dor-Decimals as Token Money.

Suggested Material.	Suggested Name of Token Coin.	Expressed in Cents (of a Dor).	Expressed in Dor-Decimals.	Weight of pure Gold represented. Grammes.
Silver	Dollar	100	1·00	1·5
	Florin	50	0·50	0·75
	Shilling	25	0·25	0·375
	Dime	10	0·1	0·15
Nickel	Cinque	5	0·05	0·075
Bronze	Penny	2	0·02	0·03
	Cent	1	0·01	0·015
	Farthing	½	0·005	0·0075

[1] In the case of France 25-francs has been taken for purposes of comparison, with weight-data 1¼ times those of the 20-franc coin, which has a mint-issue coin-weight of 6·4516 grammes and a mint-issue gold-weight of 5·8064 grammes. The coinage of France is typical of the corresponding coinages of Belgium, Switzerland, Italy, Spain and the other countries of the Latin Monetary Union, as there is the same weight of gold in their gold coins of 20 francs, 20 liras, 20 pesetas, or as the case may be.

The materials suggested are those used in the corresponding coins of the United States; but, as token coins circulate on the basis of the gold that they represent, the details of their material, weight and fineness need not be considered here. What keeps the token coins in circulation is the demand for small change, and—apart from any rule making them legally equivalent for gold—they would circulate at parity if their intrinsic value were not too far below that of the gold which they represent, or if, even though their intrinsic value were negligible, they entitle the holder to claim from the Government the gold that they represent in exchange for them; the latter arrangement would probably be the more convenient, the continuance of the demand for small change maintaining the general balance between withdrawals and re-issues.

In the dor system the paper currency would take the form of notes, each note embodying an official promise to pay on demand so many dors; and cheques and other instruments of credit would also express obligations in dors and dor-decimals. Like cheques and other instruments of credit, the paper money should circulate on its merits as far as people are willing to take it, without any rule making it legally equivalent to gold. If the Government avoids over-issuing and maintains the convertibility of its notes, they will circulate on a parity with the gold that can be obtained in exchange for them. But if the Government over-issues and fails to maintain the convertibility of its notes, they will fall below parity in the foreign markets: and they would also do so in the home market if they were not made legally equivalent to the gold that they purport to represent; but if they were made legally equivalent to it, they would be used for making payments on the basis of their nominal parity, and the monetary standard of the home country would thus be shifted—as it has already been shifted in many countries—from the gold basis to the basis of what is really depreciated paper. In order that the dor standard, once adopted, may remain effective, there should be an understanding that in every country where it is adopted, the dor should be taken to mean the specified weight of gold and nothing else, except in so far as payees are willing to take payment by notes, cheques or otherwise. These alternative means of payment—which have the advantages of convenience and security, besides economising the use of gold—would be freely utilised; and the extension of the dor standard would facilitate International banking and International clearances.

Though the dor system has been proposed for the revaluation of the depreciated currencies, it might be set on foot in the United States, where the convertibility of the paper money has been continued and there has been no depreciation. To a country enjoying these conditions it might seem strange to suggest an alteration of the monetary standard, were it not for the advantages of inaugurating an International weight-unit, and the slightness of the alteration required for that purpose. Reference has already been made to the practical identity of the weight of pure gold per dollar with the dor, and the Comparative Table shows the relations between the 5-dor coin and the \$5 coin. Taking this \$5 coin as typical of the other gold coins of the United States, we see that if its least-current weight, which is now 128·355 grains or 8·317 grammes, were raised to 8·3̇ ($8\frac{1}{3}$) grammes, as might be done after reasonable notice, the \$5 coin would contain 5 dors at its least-current weight; and if the mint-issue weight of subsequently minted coins were increased from 129 grains or 8·359 grammes to 8·375 ($8\frac{3}{8}$) grammes, there would still be the margin for wear of 5 parts per 1000. The increase would be less than half the difference between the mint-issue weight and the least-current weight, and would work out to an increase of the gold-weight by less than 0·015 grammes of pure gold, or rather less than 1 cent per \$5 coin, as shown by the gold-weight data in the Tables. This alteration would be negligible in the token money; and it would also be negligible in the paper money, the more so because the payment of, say, \$5 gold can be made by the payment of any undefaced \$5 gold coin, so long as it is not reduced by wear to less than its least-current weight, at which it contains slightly less than 5 dors.

The first practical step should be the calling of an International Conference to consider whether it is desirable to institute some gold-weight as an International unit of value, and, if so, what that gold-weight should be. If a particular weight-unit were generally approved, it would soon be adopted by some of the countries; and the more general its adoption the stronger would be the inducement for any outstanding country to stand in, so as to participate in the advantages of an International unit of value, and, to an increasing extent, of an International currency.

JAMES DUNDAS WHITE

The Economic Curricula at Oxford and Cambridge

As the University of Oxford is about to inaugurate a new Honour School of Philosophy, Politics, and Economics, and as the University of Cambridge has lately revised the regulations for the Economics Tripos, in the light of the experience of recent years, it may be of some general interest to academic economists if the particulars of the two curricula are set forth in detail.

The Oxford Curriculum

The subject of the Honour School of Philosophy, Politics, and Economics is the study of the structure and of the philosophical, political, and economic principles of modern society. The Examination has been arranged so that Candidates may give special attention *either* to Philosophy *or* to Politics *or* to Political Economy by the choice they make of prescribed books and of a further subject. The highest Honours can be attained by excellence in *either* Philosophy *or* Politics *or* Political Economy, provided that adequate knowledge is shown in the other subjects of examination.

The Examination will include the following subjects :—

I. The History of Philosophy from Descartes to the present time. A general knowledge of modern philosophy during the period will be expected of all Candidates. They will also be expected to show a first-hand knowledge of some of the main philosophical writings of the period.

II. Moral and Political Philosophy. In Political Philosophy Candidates will be expected to show a knowledge of political theory, of its history, and of modern political organisation.

III. Political Economy. Candidates will be expected to show a knowledge of economic theory, of its history, and of its application to the most important aspects of modern economic conditions.

IV. *British Political and Constitutional History: 1760–1914.* Candidates will be expected to acquaint themselves with the development of the political and constitutional history of the whole period with a view to the understanding of the political principles and the structure of modern society. British History shall be interpreted as the history not of the United Kingdom only, but of the British Empire as a whole. In Constitutional History candidates will be given an opportunity of showing knowledge of the history (within this period) of the Cabinet system, central and local administration, the law-courts, the

electoral system, the powers, privileges, and procedure of the House of Commons, the constitutional development of the Dominions and of India. In Political History opportunities will be given of showing knowledge of the history (within this period) of (*a*) political parties, movements for political and social reform, schools of political thought; (*b*) the downfall of the old colonial system, the expansion of the British Empire since 1783, the attitude of British statesmen and parties towards imperial questions; (*c*) foreign policy.

V. British Social and Economic History from 1760. Candidates will be expected to show acquaintance with the existing economic and social conditions and with the history of their development since 1760. Opportunity will be given to Candidates to show special knowledge of any one of the following subjects :—

(1) The History of Agriculture (with special reference to the Enclosure movements, the agricultural depression, the history of agricultural organisation and production, and Irish land legislation).
(2) The Domestic System and the rise of the Factory System (with special reference to the structure of industry in the West and North of England prior to the Factory System, the introduction of machinery in the textile industries, the decline of the hand-loom weavers, and Factory and Public Health legislation).
(3) Trade Policy and Transport (with special reference to the Free Trade Movement and improvements in internal and external communication).
(4) Industrial Combinations.

Candidates will be expected to show such knowledge of the contemporary history of Europe and America as is necessary for the proper study of Subjects IV and V.

VI. Prescribed books. Candidates must offer two out of the following three groups :—

(*a*) Metaphysics and Moral Philosophy :

Kant, *Kritik der reinen Vernunft*, *Grundlegung zur Metaphysik der Sitten*. Candidates will not be asked to translate passages, but they will be expected, if they have read the books in a translation, to be capable of dealing with questions which involve an understanding of the original text.

(*b*) Political Philosophy :

Burke, *American Speeches* and *Letter to the Sheriffs of Bristol*; Lord Durham's Report on Canada; Dicey, *Law of the Constitution*; Report on Indian Constitutional Reforms, 1918, Part I; Esmein, *Éléments de*

Droit Constitutionnel Français et Comparé, Tome Premier, La Liberté Moderne (Septième edition, Paris, 1921); Bryce, *Modern Democracy*.

(*c*) Political Economy:

Adam Smith, *Wealth of Nations*; the works of Ricardo (McCulloch's edition); Marx, *Capital*, Vol. I; Jevons, *The Theory of Political Economy*; List, *The National System of Political Economy*.

VII. Candidates must offer a further subject in Philosophy or Politics or Political Economy from the following list:—

(*a*) Candidates who offer a further subject in Philosophy will be set a paper in Logic, including Metaphysics and Psychology, which will be of the same general character as the paper set under that title in the Honour School of Literae Humaniores.

(*b*) Politics: (1) Public Administration: A comparative study of the relations of central and local administration in modern States; (2) The Development of International Relations since 1815; (3) The Reform Movement in British Colonial Policy (1830–1850), and the Development of the new Colonial System.

(*c*) Political Economy: (1) Currency and Banking; (2) Capital and Labour; (3) Labour Movements from 1815 to 1875.

VIII. A paper will be set of Unprepared Translation from French, German, and Italian authors. Every candidate must satisfy the Examiners in two at least of these languages.

The following scheme of Papers is contemplated:—

(1) The History of Philosophy from Descartes to the present time.
(2) Moral and Political Philosophy.
(3) Political Economy.
(4) Political and Economic Organisation.
(5) British Constitutional and Political History.
(6) British Social and Economic History.
(7 & 8) Prescribed books in two of the following subjects:
 (*a*) Metaphysics and Moral Philosophy.
 (*b*) Political Philosophy.
 (*c*) Political Economy.
(9) A further subject in Philosophy or Politics or Political Economy.
(10) Unprepared Translation from French, German, and Italian authors.

The first examination in this School will be held in the Trinity Term, 1923.

The Cambridge Curriculum

The Tripos in Economics and Associated Branches of Political Science is divided into two parts, of which the first is taken by Students at the end of their second year, and the Second Part by Students at the end either of their third or of their fourth year. Candidates for Part II of the Tripos need not necessarily have taken Part I, but may come on to it, if they are of the proper standing, after having taken any other Tripos.

Schedule of Subjects

Part I

1. Subjects for an Essay. 1 paper.
2. Economic Theory (Value and Distribution). 1 paper.
3. Industry and Labour. 1 paper.
4. Trade and Finance. 1 paper.
5. English Economic History. 1 paper.
6. Recent Economic and General History of Europe. 1 paper.
7. Recent Economic and General History of the British Empire and the United States. 1 paper.

Part II

1. Subjects for an Essay. 1 paper.
2. Economic Principles. 1 paper.
3. Public Finance. 1 paper.

E {
4. Structure and Problems of Industry. 1 paper.
5. Distribution and Labour. 1 paper.
6. Money, Credit and Prices. 1 paper.

P {
7. Structure and Methods of Government in the Modern World. 1 paper.
8. Political Theory. 1 paper.
9. International Law. 1 paper.

10. Special Subject or Subjects, if any. 1 paper each.

I. In Part I every candidate shall take the first five papers, together with either paper 6 or paper 7.

II. In Part II every candidate shall take the first three papers together with either papers 4, 5, and 6, or papers 7, 8, and 9. No paper in group E (papers 4, 5, and 6) may be substituted for a paper in group P or *vice versa*. In addition a candidate may take not more than one Special Subject.

III. Both in Part I and in Part II the subjects set for an essay

shall be related to the subject-matter of the Tripos, but shall be of a character as general as is compatible with that restriction. One or more of the subjects shall be of a political character. The examiners shall take account of literary style, of range of ideas, and of general rather than special knowledge.

IV. The Special Subject or Subjects, if any, in Part II shall be selected by the Special Board from time to time, and shall deal with Economic History, or with the History of Economic Theory, or with Political Science, or with the Theory and Method of Statistics.

V. Some choice of questions shall be allowed in all papers.

VI. In the case of candidates who are placed in the first class in Part II the class lists shall indicate whether group E or group P has been taken.

Supplementary Regulations

Part I

1. Paper 2 on Economic Theory (Value and Distribution) shall deal with the subject-matter covered by Marshall's Principles of Economics.

2. Paper 3 on Industry and Labour shall deal broadly with the structure and organisation of industry, and conditions affecting labour and social progress.

3. Paper 4 on Trade and Finance shall cover the elements of money, banking, markets, international trade, taxation, and public finance.

4. Paper 5 on English Economic History shall deal with the period since 1700; but one or two questions of a general nature may be set, involving a knowledge of earlier economic history. Questions dealing with the political history of England shall not be asked except in so far as they have a direct and important bearing on its economic development.

5. In papers 6 and 7 "Recent" shall be interpreted to mean "mainly since 1800." The questions shall not include military or literary history. In both papers attention shall be given to the interrelation of political and economic movements and to their bearing on existing political institutions.

6. In paper 6 knowledge of economic development shall be required for France and Germany only, and no questions shall be set dealing with the internal history of the countries of Eastern Europe.

7. Paper 7 shall deal in about equal proportions with the history of the British Empire and the United States.

Part II

1. Paper 2 on *Economic Principles* shall deal with the scope and method of Economics, with fundamental ideas, and with the general analysis of demand and supply as illustrated by the broader problems of wages, interest, rent, foreign trade, money, and prices. It shall not include detailed questions on the subject-matter of any department of Economics; but questions of a general character, illustrative of the way in which values are determined, may be taken from any part of the subject.

2. Paper 3 on *Public Finance* shall deal with matters connected with the raising and spending of revenue and loans by Governments (central and local), the regulation of international trade, and the financial relations of Governments.

3. Papers 4, 5, and 6 shall be more specialised in character than papers 2 and 3, but in any of them questions may be set which overlap the divisions between them. They shall be so arranged as to afford scope both for the marshalling of information and for the exercise of analytical power in abstract reasoning and in disentangling causal relations. They shall pay attention to the statistical methods and the statistical sources relevant to their subject-matter, and to international comparisons.

4. Paper 4 on *Structure and Problems of Modern Industry* shall have for subject-matter:

The localisation of industry, national and international, as influenced by local conditions, transport facilities, tariffs, bounties, etc.

Methods of production, as exemplified by private businesses, joint-stock companies, trusts, kartels, co-operative societies, national undertakings, municipal undertakings, etc. Agricultural organisation and land tenure. Transport by land and water. Methods of marketing. Stock and produce exchanges, etc. Fluctuations of demand in particular industries.

5. Paper 5 on *Distribution and Labour* shall have for subject-matter:

The distribution of income among the various members and classes of the community—land-owners, capitalists, employers, manual workers, speculators, and others.

The relations between employers and employed: the methods of industrial remuneration; profit-sharing, co-partnership; the regulation of wages, hours and conditions of labour; trade unions and employers' associations; conciliation and arbitration.

Fluctuations of employment. Labour Exchanges. Various

forms of industrial insurance. Governmental and voluntary action in relation to poverty.

6. Paper 6 on *Money, Credit, and Prices* shall have for subject-matter:

Monetary Theory. Causes and effects of changes in the purchasing power of money, and the methods of measuring them. Systems of currency. Banks and banking systems. National and international money markets. Foreign exchanges. The balance of trade in relation to international values and price levels and to foreign investment. Credit fluctuations.

7. Paper 7 on *Structure and Methods of Government in the Modern World* shall have for subject-matter:

A comparative study of systems of government and their working; including local, central, and federal institutions, and the government of dependencies; with special attention to the British Empire, the United States, France, Germany.

8. Paper 8 on *Political Theory* shall have for subject-matter:

An analytical study of the nature of the State, the grounds of political obligation, and the proper functions of government in the modern world; it shall include an outline of past political thought, and a critical examination of current political ideas.

9. Paper 9 on *International Law* shall deal with the general principles of International Law and Institutions. Stress shall be laid on modern developments of international relations, particularly the League of Nations, the minorities clauses of the Peace Treaties and the mandatory system.

The Labour Report on the Cost of Living

A Joint Committee of the Parliamentary Committee of the Trades Union Congress and of other labour associations (Secretary, Mr. Arthur Greenwood) have issued a report[1] on the increase of the Cost of Living between 1914 and September 1920. The main result of the calculation is an estimate of an increase of 189 per cent. (food only, 176 per cent.), compared with 161 per cent. (food only, 167 per cent.) in the Ministry of Labour's Index-number.

The Committee collected 629 budgets of expenditure over the four weeks in September 1920; it is doubtful whether the results are properly comparable with the *Labour Gazette* statement for September 1st (as the report assumes) or for October 1st when the percentage had risen 3 points to 164. The budget is well-devised and adequate care appears to have been taken in

[1] To be obtained from the Secretary, Parliamentary Committee, 32 Eccleston Square, S.W. Price 2*s*. 6*d*.

the tabulation of the returns, so that the average food budget on p. 22 is important evidence for the student of working-class consumption. Unfortunately, no details are given of the constitution of the families, except that the average is 5·2 persons, including 1·6 wage-earners. Without more detail we cannot make an adequate comparison with the former collections of budgets by the Board of Trade in 1904 and by the Cost of Living Committee in 1918.

The Committee's method is to take the expenditure item by item in 1920 and to calculate with the help of records of price changes the cost of the same quantities of similar goods in 1914. The Ministry of Labour, on the other hand, start with relative expenditures in 1914 (assumed to be the same in proportion but not in amounts as in 1904) and apply price-ratios to find corresponding expenditure in 1920. The Cost of Living Committee of 1918 found that the assumption made that the 1914 expenditure-ratios were the same as those of 1904 could not cause any important error. The two methods of using the standard of the first date and working forward and of using the standard of the second date and working backwards were discussed in the ECONOMIC JOURNAL of March 1920 (pp. 114–17). Both are good, and the true measurement lies between their results, if the families at the two dates are comparable.

Unfortunately, the arithmetic of the Committee is incorrect in the food estimate, and there is a serious mistake made in the treatment of miscellaneous expenditure; when these are corrected the results are substantially the same as those of the Ministry of Labour.

The results can thus be tabulated:

	Average family (5·24 persons). Weekly Expenditure in September 1920.			Cost of same goods in July 1914.			Percentage increase.	Ministry of Labour percentages.	
	£	s.	d.	£	s.	d.		September 1.	October 1.
Food	3	0	8	1	2	0	176	167	170
Clothing ...	1	2	7		5	5½	313	330	330
Rent and rates		7	11		5	6	43	35	39
Fuel and light		7	4		2	5½	198	135	140
Other items ...		17	3		4	8	?270 [1]	130	130
	5	15	9	2	0	1	189	161	164

[1] This query is printed in the table, p. 32, but not carried to the total or to the principal argument.

In the food budget (p. 22) currants and egg-substitutes are entered at 8*d.* and 1½*d.* respectively in 1920, but at zero in 1914, though all other commodities are taken at the same quantities at both dates; condensed milk is entered at 9½*d.* in 1920 and 1½*d.* in 1914, though the table of prices shows that 3½*d.* is the correct entry. If we cut out egg-substitutes, put currants at 2½*d.* in 1914 and condensed milk at 3½*d.* the food expenditures are £1 2*s.* 4½*d.* and £3 0*s.* 6½*d.*, and the percentage increase is 171, which *is between the Ministry of Labour's estimates* for large towns for September 1st and October 1st. The criticism of the official number for food breaks down entirely.

In point of fact, however, the new figure might be expected to be lower than the old, owing to the effect of substitution; in particular, more margarine and less butter and sugar are shown in the 1920 than in the 1914 budgets. The Committee estimate greater increases in some prices than does the Ministry of Labour, but since they depend on rather rough averages from co-operative societies, while the Ministry includes other shops also and takes care to have exact prices, it is not necessary to prefer the Committee's statements. If we take only the commodities included in both reckonings the increase shown by the Ministry of Labour's quantities and price-ratios is 167 (to September 1st), by the Committee's quantities and the Committee's price-ratios 172, and by the Committee's quantities and the Ministry's price-ratios only 154; thus the change of diet leads to an increase less than on the old standard. It should be added that the additional foods included by the Committee show (when corrected) only 162 per cent.

For *clothing* the Committee give a table of wholesale prices, which are not much to the point, and only eight entries for retail prices, of which the first is "men's suits, 1914, 22*s.* 6*d.* to 27*s.* 6*d.*, 1920, 65*s.* to 110*s.*," a statement wanting in definition and with too wide a range for averaging. They state, however, that "from an investigation of the information at our disposal it is clear that the increase in the cost of clothing and clothing materials, exclusive of boot repairs, is within the range of 250 per cent. and 350 per cent.," and nearer the latter figure. They accordingly accept the Ministry of Labour's figure 330, but modify it to 313 per cent. when boot repairs are included. Both parties neglect the effect of modifications of expenditure and necessary changes in quality, and the new investigation does not add substantially to our knowledge.

For *fuel* and *light* the increase in prices taken is practically

the same in both estimates, except in the case of coal. The Committee find (presumably from the budgets) that coal cost 2*s*. 10*d*. to 3*s*. 3*d*. per cwt. in 1920, and without giving their evidence state that it was 10½*d*. to 1*s*. in July 1914. In Appendix V the prices in Scotland are stated as 1*s*. 2½*d*. and 2*s*. 10½*d*. at the two dates; Lord Sumner's Committee estimated 1*s*. 1*d*. in 1914. The Ministry of Labour, who depend on reports from thirty large towns, give 145 per cent. as the increase, greater than the Scotch estimate, and reasons have still to be found for the Committee's estimate of 225 per cent.

For *rent* the Committee state that the maximum permitted increase of 43 per cent. had been reached, while the Ministry of Labour, on the basis of wide inquiries, estimate 35 per cent. and 39 per cent. at the beginning and end of the month.

If we accept the Committee's views on rent and coal prices, but correct the figures as above for currants, etc., we find that for the four groups combined (all, excluding "other items"), expenditure was £4 18*s*. 4½*d*. in 1920 and £1 15*s*. 9½*d*. in 1914 and the increase 178 per cent., while for the same groups the Ministry of Labour's estimate for large towns is 167 per cent., average of September 1st and October 1st. If, however, we accept the Ministry's account for coal, the Committee's estimate is reduced to 171 per cent., and the difference is trifling.

The more serious discrepancy is found in "other items," and here the Committee's method is indefensible. In the average budget the expenditure on other items is 17*s*. 3*d*.; it is not clear whether beer and tobacco, which are cut out from food, are included or not, and no details of the expenditure are shown. Two tables are given, one showing comparative wholesale prices of towels, table-cloths, etc., the other retail prices of crockery, ironmongery, etc.; from these it is deduced (apparently by rough inspection) that the expense of household renewals has increased 300 per cent.; rather more detail for soap, etc., leads to the opinion that cleansing materials had risen 225 per cent. At this point the analysis is given up and the whole 17*s*. 3*d*. is compared with an estimate used by Lord Sumner's Committee that other items might be taken at 5*s*. in 1914, reduced to 4*s*. 8*d*. because the Labour Committee's average family was smaller. The items in Lord Sumner's Committee's estimate were paraffin, candles, matches, firewood and cleansing materials 14*d*., travelling 10*d*., insurances 3*s*. Nothing was included for tobacco, newspapers, postage, amusements or any other of the numerous items on which surplus money is spent, and it was not necessary

to make any estimate for these for the purposes of that Committee. The comparison of this 4*s.* 8*d.* with the 17*s.* 3*d.* is the sole basis for the estimate that "other items" have increased 270 per cent. In fact, postage, newspapers, travelling, and national insurance had less than doubled; as far as one knows, trade union subscriptions and admission to cinemas had not doubled, and beer and tobacco had increased perhaps 150 per cent. Weekly expenditure on household renewals is always a trifling proportion of wages, and it is only on these that great increases are alleged. The Ministry of Labour includes in other items soap, soda, ironmongery, etc., tobacco, fares and newspapers (but apparently not insurance nor subscriptions), and found an increase of 130 per cent. to September 1st; this seems to be a not unreasonable estimate, and if we apply it to the Committee's 17*s.* 3*d.* we find that the corresponding expenditure in 1914 was 7*s.* 6*d.*; in taking this we may balance the omission of insurance against a possible under-estimate for the increase of the price of commodities not included by the Ministry.

If now in the Committee's 1914 budget we write 7*s.* 6*d.* instead of 4*s.* 8*d.* for other items and correct as before for food (but not for coal and rent), the expenditures are in 1920 £5 15*s.* 7½*d.* and for 1914 £2 3*s.* 3½*d.*, an increase of 167 per cent., which is precisely that for large towns on October 1st according to the Ministry of Labour's estimate.

This attack on the official figure thus breaks down entirely.

In the report there is a great deal of unfounded criticism of the Ministry of Labour's choice of weights. It is said that the Ministry "adopted in 1920 the same weights for the five groups of items into which family expenditure is analysed as they did in 1914. The weights in our investigation have been varied according to the actual expenditure on each of the groups of items in 1914 and 1920 respectively." This is a complete misconception; the Ministry, in fact, applied price-ratios to weights proportional to expenditure in 1914, the Committee applied price-ratios to the actual expenditures in 1920.

Write P_1, P_2 . . . for prices, Q_1, Q_2 . . . for quantities in 1914, and p_1, p_2 . . . for prices in 1920. Write $r_1 = 100\ p_1/P_1$, etc., and $E_1 = P_1Q_1$, $E_2 = P_2Q_2$, etc. Then E_1, E_2 . . . represent expenditures in 1914. The Ministry's index-number is $(E_1 r_1 + E_2 r_2 + \ldots)/(E_1 + E_2 + \ldots) = 100\ (Q_1 p_1 + Q_2 p_2 + \ldots)/(Q_1 P_1 + Q_2 P_2 + \ldots)$.

Now write $e_1 = p_1\ q_1$, $e_2 = p_2\ q_2$ . . . for the Committee's estimates of expenditures in 1920, and take the price-ratios to be the same in both reckonings.

The Committee's index-number is $100\ (e_1 + e_2 + \ldots)/ (\frac{100e_1}{r_1} + \frac{100e_2}{r_2} + \ldots) = 100\ (q_1\ p_1 + q_2\ p_2 + \ldots)/(q_1\ P_1 + q_2 P_2 + \ldots) = (q_1 P_1 r_1 + q_2 P_2 r_2 + \ldots)/(q_1\ P_1 + q_2 P_2 + \ldots)$. In each method the weights applied to the prices are the same at both dates.

The Committee compares its e_1, e_2 . . . with the Ministry's E_1, E_2 . . . and naturally finds that $E_1 : E_2 : \ldots$ does not equal $e_1 : e_2 : \ldots$, and on this inequality bases sharp criticisms. Now if we compare, as we legitimately may, the ratios $E_1 r_1 : E_2 r_2 : \ldots = Q_1\ p_1 : Q_2\ p_2 : \ldots$, which show what the relative expenditures have become after the lapse of time, with the Committee's $e_1 : e_2 : \ldots = q_1\ p_1 : q_1\ p_2 : \ldots$ we find the differences are mainly due to "other items," thus :—

	Proportionate expenditure in different groups.	
	Committee, 1920.	Ministry, computed for 1920.
	e_1, e_2, etc.	$E_1\ r_1$, $E_2\ r_2$, etc.
Food	52·41	61·3
Clothing ..	19·51	19·7
Rent	6·84	8·3
Fuel and light	6·34	7·2
Other items ..	14·9	3·5
	100·0	100·0

If "other items" are excluded and the remainder percentaged the agreement is close.

No doubt the Ministry of Food give too little importance to "other items," though it has always been a puzzle how the poorer of the working-class meet these expenses; but if the Ministry's percentages are applied to the Committee's 1920 weights, the increase above 1914 is 161 per cent., as actually obtained in the official statement.

To sum up: the excess found by the Committee is due (1) to a mistake in the food computation; (2) to an unverified additional increase in the price of coal; (3) to a completely unwarrantable treatment of other items; (4) to taking September 1st instead of the mean of September 1st and October 1st. The contributions to the index of these four are respectively about 5, 5, 20 and 1½ points.

It is very unfortunate that the report will be accepted by the Labour Party as a successful attack, based on scientific methods, on the official index-number. The material is fairly good, the analysis seems to be made in good faith, and the mistakes and lack of evidence are not obvious to those who are inexperienced in calculations of this kind.

A. L. BOWLEY

A Note on Mr. Salter's "Allied Shipping Control"[1]

Mr. Salter is far too modest: he was no mere passing observer of the events and facts he describes so ably. Rather was he an active working force representing at every moment the most up-to-date phase of the Government's policy as it altered and progressed from time to time. Any one who was at all closely connected with the work at the time will recognise the accurate skill with which the picture is presented. Every struggle of conflicting policies, every force which contributed to the policy finally agreed—all are mentioned, all are there to be discovered by the careful reader. As an accurate record of the facts and events described it is almost impossible that the book will be surpassed.

The book, however, is a great deal more than a record of facts: it constitutes, perhaps unwittingly, a most able defence of Government policy. Unwittingly because neither the author of the book nor the authors of the Government policy appear to realise that the policy needs defence.

It is a truism to say that half this country's population is absolutely dependent on the continuance of its foreign trade. The growth of this trade produced this population, its decline will destroy or remove it. At no stage during the growth of the organisation of Controls was there apparent any regard for this elementary truth. On the contrary, Order after Order, Control after Control were imposed upon British commerce, with no other object than to meet some immediate need, some political outcry, some sudden appeal from Allies or Dominions, or even to gain some political advantage.

To use a phrase which should be recognised by Mr. Salter, it was government by competitive panic. In the last analysis the motives are all reducible to a single one, fear. It was this same motive, fear, which rendered of little effect the attempts at Restriction of Imports and the work of the earlier Committees, such as Lord Curzon's Shipping Control Committee and the Tonnage Priority Committee.

The effect on British commerce has been disastrous. At first it was simply hampered, as it were, incidentally by the forcible rupture of its contracts. Next it was in part destroyed, either as an incident to alleged necessity of supply or because rising

[1] *Allied Shipping Control: an Experiment in International Administration.* By J. A. Salter. (Published by the Clarendon Press on behalf of the Carnegie Endowment for International Peace.)

prices were politically inconvenient. Finally in parts it was debauched by being taught to make money through Government Control. As seen since the Armistice, the damage to the enterprise and morale of British commerce has been incalculable; the result has been the unemployment doles and will be emigration. These are heavy prices to pay for Control, and can be justified only by the clearest necessity.

The necessity may have been present—almost certainly it was, quite certainly it was growing—but a system which has produced such results, even under the spur of necessity, requires rather an apology than to be held up as an achievement to be admired and as an example for the future. The Government and the author are here at one: both exhibit, or have exhibited, to be admired diagrams of organisation embracing a very large part of British commercial activity.

It would almost appear as if the Government at one time had been consciously working for the complete nationalisation of all commerce, dishonest though it would have been to attempt this under cover of a great war. Probably, however, such a charge would have no foundation. At the same time the Government is only cleared of such a charge at the expense of admitting that it was influenced by competitive panic.

Fortunately for British commerce, and equally fortunately for the population dependent on that commerce, the machinery of Control, British and Allied, never was operated at full power. Fortunately, too, the levers operating Allied Control remained largely in the hands of British Ministries. This occurred chiefly through Allied default, actual or technical, under the various agreements. Had not the Armistice intervened in November 1918, had the war lasted another year, the process of controlling British commerce might well have gone too far to be reversed, and the country might have emerged from the war with the delicate fabric of British commerce irretrievably ruined, and with the inevitable prospect of State monopoly trading.

As it was, the post-Armistice Tonnage Agreement with France on January 22, 1919 (Document 16), postponed the release of British commerce by at least six months, and thus gravely hampered its convalescence.

That there are those who wish to see this country regulated under some form of State Socialism, or even Communism, is well known. It is a curious reflection that the realisation of their desires was prevented only by the termination of hostilities in November 1918. If in 1919 there had been such an office as that

of the Arch-Controller, British commerce would have most fittingly addressed it in these words, which a Colonel Sexby once wrote to Oliver Cromwell :—

"To your Highness justly belongs the honour of dying for the people; and it cannot choose but be unspeakable consolation to you in the last moments of your life to consider with how much benefit to the world you are like to leave it."

The whole of the remarkable dedication of Colonel Sexby's pamphlet would indeed serve as a complete expression of the attitude of British commerce to the war system of Controls. Such a system may be endured as a necessity; it can never be admired as an example.

PERCY E. BATES

OBITUARY

ARNOLD JACOB COHEN STUART

THE name of Cohen Stuart is associated with a peculiar variety of the principle which forms the criterion of equity in the distribution of fiscal burdens. Whereas J. S. Mill taught that justice is realised when each tax-payer incurs an equal sacrifice, Cohen Stuart interpreted the dictum as meaning that the sacrifice of each should not be equal absolutely, but should bear the same ratio to the total satisfaction which each individual derives from his income. This doctrine is recommended to some by its leading to a higher rate of progression than the simple equality of sacrifice. To others the conception of a ratio between two amounts of the subjective quantity sacrifice presents difficulty. It is hazardous enough to affirm that the sacrifice felt by one person is greater or less than what is felt by another. Have we faculties capable of measuring the ratio between the pain of privation which a person suffers from an assigned loss of income and the total quantum of satisfaction which he derives from income, and comparing this ratio with the corresponding ratio for another person? A virtual affirmative to this question seems to be given by the high authorities who have accepted the principle of Cohen Stuart. Thus Professor Seligman unhesitatingly accepts the principle as the proper interpretation of Mill's precept. The adhesion of Lord Courtney was equally unequivocal. The authority of

Cohen Stuart himself counts for much in a matter about which practical good sense is decisive. He was a man of very varied abilities, knowledge and experience. Born at La Hague in 1855, the son of an official who ranked high in the Civil Service, he was educated at the Polytechnic School in Delft. At the age of twenty-three he was appointed supervisor of the waterworks (connected with irrigation) in Java. The facility with which he acquired the native languages, usually so difficult to Europeans, was remarkable. Compelled by illness to return to Holland, he took the opportunity of entering the University of Amsterdam. He used to say that it was an advantage to have learned Latin and Greek at a maturer age than is usual. It was during his academic career that his attention was directed to the theory of taxation by Mr. N. G. Pierson's treatment of the subject. The work which Cohen Stuart was stimulated to write at this period was indeed, as the Dutch title purports, a contribution to the theory of progressive taxation. It earned for him the degree of Doctor of Laws and nomination to more than one Professorship at the University of Amsterdam. He practised law in Amsterdam for several years, was secretary to the Chamber of Commerce, and Member of the County Council. In 1900 he accepted a position in the Royal Dutch Petroleum Company, and in connexion with this business visited India, China and Australia. In 1906 he became one of the managing directors of the company and settled in London. His intention to resign that post this year, in order to devote himself to scientific pursuits, was anticipated by death. The Economic Society has to lament the loss of a very distinguished member.

F. Y. E.

CURRENT TOPICS

THE following have been elected to membership of the Royal Economic Society :—

Aggarwala, Prof. C. L.
Andrew, F. W. B.
Bachi, Prof. R.
Bangay, C. S.
Bell, W.
Bhargava, Prof. S. P.
Bolam, W. H.
Boyd, S. M.
Braithwaite, H. W.
Broadhead, H.
Brown, E.
Burnett, H. W.
Chappell, E. L.
Chapple, L. J. B.

Clerk, W. J.
Cohen, R.
Cudmore, S. A.
Cummins, W. H.
Dance, E. H.
Das, B. K.
Dave, Shrikrishna.
Farnam, H. W. (life).
Ferreira, F. H.
Foster, W. T.
Frost, Wesley.
Fryer, J. B.
Fukuda, Dr. T. (life).
Fullbrook-Leggatt, L. E. W. O., M.C.
Geary, F.
Gee, P.
Ghambashidze, D.
Goswami, T. C.
Gourvich, Dr. P. P.
Gwyther, C. E. (life).
Henderson, A.
Horobin, I. M.
Horton, G. P.
Hsia, C. L.
Hsu, L. S.
Imamura, S.
Innes, E.
Inuzuka, K. (life).
Isserlis, L. Sc.D.
Johnson, G.
Jones, L.
Jordan, Rev. C. B.
Jottrand, Prof. E.
Keüchiro, Y.
Keskar, Prof. Y. D.
Kubo, Togo (life).
Liddington, H. J.
Lloyd, E. M. H.
McLauchlan, F.
Manning, F. J.
Matthews, B. H.
Matzen, F. E.
Morrow, D. W. (life).
Paish, F. W.
Pasteur, F. M.
Paz, E. P.
Perry, S. J.
Pilcher, R. G.
Prentice, J. S.
Ritchie, A. B.
Russell, H. G.
Rycraft, A. G.
Sandwell, B. K.
Saunders, E.
Scholfield, A.
Selfridge, H. G., Jr. (life).
Sicar, Prof. P. N.
Siepmann, H. A.
Stannard, J. W.
Stanners, R. W.
Statham, E.
Stein, W. O.
Subramanyan, P.
The Canton Christian College.
The Royal Bank of Canada (Foreign Trade Dept.), Montreal.
The Sumitomo Bank, Ltd., Osaka, Japan (Compounder).
Thomas, J.
Thomas, S. E. (life).
Thomasson, J. F.
Tinnes, D. J.
Trott, A. C.
Tucker, Prof. R. H. (life).
Underwood, Miss C. P.
Wakabayashi, Y. E.
Ward, Lt. F. G. S.
Wigglesworth, F.
Williams, H.
Wilson, Prof. J. L.
Yokobe, J.
Yoshida, M.

The following have been admitted to library membership :—Arkansas University; Central Public Libraries, Bristol; City of London College; Labour Office, Secretariat, Bombay; Società Di Letture E Conversazioni Scientifiche, Genoa; The Central Statistical Bureau of Finland; The Library of the Supreme Court of Canada, Ottawa; The Royal Society of New South Wales; University of Finland, Helsingfors (1922); Watkinson Library, Hartford, Conn.

PROFESSOR D. H. MACGREGOR, lately Professor of Political Economy in the Victoria University of Manchester, has been elected to the Drummond Chair of Political Economy in the University of Oxford, in succession to Professor Edgeworth, whose approaching retirement was announced in the last issue of the JOURNAL. Previously to his election (in 1919) to the Stanley Jevons Chair at Manchester he had been Professor of Political Economy at Leeds. He is the author of two well-known works: *Industrial Combination* (1906) and *Evolution of Industry* (1911); besides numerous contributions to learned periodicals, in particular the ECONOMIC JOURNAL. He is, we believe, the only Professor of Political Economy who has received the Military Cross "for gallantry and devotion to duty in action."

Dr. Lilian Knowles, lecturer in Economic History at the London School of Economics, has been accorded the title of Professor in the University of London.

Mr. Alexander Gray, M.A., head of the Approved Society Branch of the Insurance Department, London, has been elected to the new Jaffrey Chair of Political Economy in the University of Aberdeen.

Professor B. Mukherjee, M.A., has been appointed Reader in Economics in the University of Lucknow.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

MARCH, 1921. *The Measurement of Price Changes.* A. W. FLUX. An explanation of the principles on which the new index number of the Board of Trade is based. *The Mint and Precious Metals in Canada.* J. BONAR. A felicitous exposition of monetary details. *Wholesale Prices of Commodities in* 1920. EDITOR OF THE STATIST. The general index number for the year 1920 is a record: 251 as compared with 100 in 1867–1877 (85 for 1913–14). In the last quarter there was a fall to 223·6 (still higher than the average for 1919, viz. 206).

MAY. *The World's Wheat.* SIR JAMES WILSON. A comparison of pre-war and post-war production. *Costs in Engineering.* R. J. A. PEARSON. *Review of Recent Foreign Exchange Fluctuations.* N. E. CRUMP.

JULY. *The Problem of Time Correlation.* G. UDNY YULE, F.R.S. A statement and criticism of methods employed to show the relation between two quantities varying with the time. *Women's Minimum Wages.* DOROTHEA M. BARTON. A sequel to the paper read June, 1919.

The Edinburgh Review.

JULY, 1921. *The Dilemma of Civilisation.* THE DEAN OF ST. PAUL'S. "Unless the devastating torrent of children can be stemmed, our condition will certainly go from bad to worse." "It would be possible to make all parents pay for a good square meal given to the school children once a day . . . unpleasant for the poor and prolific parent." *The Public Purse.* EDITOR. A severe indictment of governmental extravagance.

The Quarterly Review.

JULY, 1921. *Australian Labour and Ideals* **. *Chartism.* ELIE HALÉVY. *The War of the Mines.* ARTHUR SHADWELL. Reflections on the Coal Strike.

The Nineteenth Century.

JUNE, 1921. *The International Labour Office.* LORD ASKWITH. A warning against the bureaucratic spirit evidenced by the action of the Office in the case of *white lead* and *agriculture.*

JULY. *The Industrial Crisis and the Remedy.* SIR CHARLES MACARA.

The Contemporary Review.

JUNE, 1921. *The Coal Problem.* I. LORD GAINSFORD. The Coal-owner's case. II. R. H. TAWNEY. A plea for the reorganization of the Coal Industry.

AUGUST. *The Present State of Free Trade.* SIR GODFREY COLLINS. We won the war under a Free Trade policy; we may lose the peace through Protection. *The Industrial Outlook.* J. A. R. MARRIOTT, M.P.

The Fortnightly Review.

JUNE, 1921. *The State and the Railways.* J. A. R. MARRIOTT, M.P. *British Labour and the Bolshevic Danger.* POLITICUS.

Journal of Indian Industries and Labour (Calcutta).

FEBRUARY, 1921. Vol. I. Part I. A foreword by Sir Thomas Holland explains that the new Journal forms a step towards provincial co-operation. Among the articles are *The Possibilities of Industrial Development in the Central Provinces and Berar.* SIR E. LOW. *Welfare Work in Bombay Cotton Mills.* SIR E. LOW. *Trade Disputes in Bengal.* DIRECTOR OF INDUSTRIES.

International Labour Review (Geneva).

APRIL, 1921. *Co-operation in Industry.* J. D. ROCKEFELLER, jun. A very liberal industrial creed. *Industrial Arbitration and Conciliation in Italy.* Based on information received from the Italian Ministry of Labour. *Old Age Pensions Legislation in France.*

MAY–JUNE. *Social Legislation in the Republic of Austria.* DR. MAX LEDERER. *The Industrial Training of Disabled Men in the United Kingdom.*

The Quarterly Journal of Economics (Cambridge, Mass.).

MAY, 1921. *Should the Excess Profits Tax be Repealed?* THOMAS S. ADAMS. "The Excess Profits tax (in the United States) has grievously sinned in over-taxing profits derived from the more hazardous and difficult industrial undertakings." It might be superseded by certain reforms in the income tax. *Is Market Price Determinate?* F. W. TAUSSIG. Within the limit of a certain "penumbra," the laws of supply and demand do not apply to market prices. A decline in price may induce people to *sell* more for fear of a further fall. The ordinary rules are particularly little applicable to the market in securities. *The Meat-Packing Investigation.* L. D. H. WELD. A reply to Dr. Virtue's article of August, 1920, appraising the Federal Trade Commission's Report on the Meat-Packing Industry. *The Fabian Socialist Commonwealth.* A. N. HOLCOMBE. Mr. and Mrs. Webb's book dealing with this subject is an arsenal of arguments and suggestions for a moderate policy of State Socialism. "They have dealt a heavy blow to the propaganda of the Guild Socialists, the Syndicalists, and the Revolutionary Communists." *Early history of the term Capital.* EDWIN CANNAN.

The American Economic Review (Cambridge, Mass.).

JUNE, 1921. *Federal Reserve Policy.* A. C. MILLER. *Marketing of Agricultural Produce.* JAMES E. BOYLE. *Criteria of Marketing Efficiency.* FRED E. CLARK. *Farmers' Co-operative Association.* A. HOBSON. *Grain Standardisation.* H. BRUCE PRICE. *Stabilisation of Prices.* B. H. HIBBARD. *The Collective Labour Contract.* T. M. AVELALLEMANT. *The Industrial Situation in Great Britain.* H. FEIS.

Journal of Political Economy (Chicago).

JUNE, 1921. *The Federal Farm Loan Case.* HOWARD H. PRESTON. Referring to the Federal Farm Loan Act, recently upheld by the Supreme Court. *Paid-in Capital of the Federal Reserve Banks.* J. D. MAGEE. *Labour Absenteeism.* E. FRANKEL. The more or less involuntary absence of employees from work is recorded for several establishments.

JULY. *A Survey of Profit-Sharing and Bonuses in Chicago Printing Plants.* F. E. WOLFE. *The National Adjustment Commission.* B. M. SQUIRES. Referring to a war-time agency for the control of the long-shore industry. *The Classification of the Population According to Income.* E. SYDENSTRICKER and WILLFORD KING. To determine income in relation to *requirements* there are employed novel units, "fammain,"—"a demand for food of a money value equal to that demanded of the average male" in defined conditions; "ammain" (adult male maintenance) similarly related to the money value of articles of consumption generally.

American Academy for Social Science (Philadelphia).

MAY, 1921. *Taxation and Public Expenditures* is the subject of this month's number.

The Chase Economic Bulletin (New York).

APRIL, 1921. *Procedure in Paying the German.* B. ANDERSON. "The basic physical fact is that Germany must produce more than she consumes, creating a surplus for the indemnity." "If individual traders all over the world, studying their local markets, knowing their sources of demand, can gradually begin to import German goods, increasing the amounts gradually, it will be possible for the outside world to absorb easily any surplus of goods that Germany can possibly create."

The Review of Economic Statistics (Cambridge, Mass.).

MAY, 1921. The special feature of this number is the discussion by Professor Persons of that one of Irving Fishers' formulæ, which he recommended at the last meeting of the American Statistical Association as "the best." It is best only for certain purposes, the writer maintains.

JUNE. *Recent economic and financial progress in Germany.* JOSEPH S. DAVIS. "A marked increase in the desire to work among all classes" is noted among other favourable symptoms.

JULY. *Recent economic and financial progress in France.* JOSEPH S. DAVIS. "France is working, saving, progressing amid difficulties, determined to surmount them." This is an exceptionally well-informed article with much up-to-date information.

Journal des Économistes (Paris).

JUNE, 1921. *Les dépenses recouvrables et les accords de Londres.* YVES GUYOT. *Le budget du Royaume-Uni pour* 1921–22. W. M. J. WILLIAMS. *Le retour à l'école Manchester.* G. B. HURST. *La dette publique des États-Unis de* 1789 *à* 1861. A. RAFFALOVICH.

JULY. *Les salaires et les Prix.* YVES GUYOT. *Après la grève.* F. PASSY. *Les industries electriques en Chine.* FERNAND JACQ. *Un théorie Anarchiste.* N. MONDET. Referring to Jean Grave's *Réformes, Révolutions. La crise économique en Espagne.* A. MARVAUD.

Revue d'Économie Politique (Paris).

MAY–JUNE, 1921. *L'évolution actuelle du Bolchévisme.* S. ZAGORSKY. Facts foreseen by economists compel the Soviet Government to substitute taxation of the peasants for requisition of their produce to restore liberty of exchange, and to grant foreign capitalists a freedom of action which cannot consistently be withheld from native Russians. *L'idée de loi naturelle dans la science économique.* P. STRUVE. *Le change Egyptien depuis la guerre.* P. ARMINJON. An experiment in the stabilization of exchanges. *L'indice du cout de la vie du bureau de Statisque de la Ville d'Amsterdam.* R. CLAEYS. Continued from the last number. *La crise économique jugée par les banquiers Anglais.* L. BAUDIN. A useful summary of opinions lately expressed by English specialists.

De Economist (La Hague).

JUNE, 1921. *Geen afzonderlijke vrouwen-arbeids bescherming.* ANNA POLAK. A protest against special legislation for female employees as resulting in their not being employed. *Progressieve inkomsten belasting.* W. J. DE LANGEN. Progressive income tax.

Ekonomisk Tidskrift (Uppsala and Stockholm).

1921. No. 1. *Direct Taxation in England.* GUSTAF LINDAHL. *Ricardo and the Theory of Foreign Exchanges.* D. DAVIDSON. *The Entente's Reparation Demands on Germany.* D. DAVIDSON. *Social Insurance:* a lecture by P. G. LAURIN (Proceedings of the Political Economy Club).

No. 2. *The Equilibrium of the Foreign Exchanges.* BERTIL OHLIN. *The Gold Question.* D. DAVIDSON. *Further discussion on Ricardo and the Theory of Foreign Exchanges.* G. SILVERSTOLPE. Reply, by D. DAVIDSON.

No. 3. *The Rise of Prices, Inflation and Foreign Exchange Policy.* BERTIL OHLIN. *Note Circulation.* D. DAVIDSON. *The Problem of Provisional Protective Duties.* Lecture by E. Huss and discussion at the Political Economy Club.

[As is not unnatural, the chief topics of discussion in the recent issues of the Swedish *Economic Journal* relate to currency. Following on earlier articles on the same subject, Prof. Davidson reiterates his contention that Ricardo held that a change in the purchasing power of money in a country is not of necessity reflected in the rates of exchange with other countries. Dr. Silverstolpe endeavours to lead the discussion into the wider field of the general theory of the exchanges, but Prof. Davidson declines to anticipate the results of a general study of Ricardo's teaching on this subject which he has not yet completed, and contents himself with insisting that Ricardo does not support the view expounded by Dr. Cassel in this JOURNAL and elsewhere. Herr Ohlin, in an article on the conditions of equilibrium of the Foreign Exchanges, gives an interesting geometrical construction for the expression of those conditions in the case of an individual article which does not, however, appear to simplify the general problem in any marked degree.

In his article on the Gold Question Prof. Davidson discusses the return to a gold basis and the conditions for such a policy in Sweden. He holds that for effective action, co-operation between the United States, Holland, Switzerland, Japan, Spain and Sweden's neighbours, Denmark and Norway, is desirable, possibly extending also to Canada and Australia. At least a year would, he thinks, be required before Sweden could safely get back to gold parity and current redemption of notes with gold. For her two neighbours a further year is deemed to be necessary, while England, France and Germany will need many years of effort before this desirable end can be achieved in their case. The general effect of resumption of redemption in gold and the establishment of the conditions necessary for such redemption are discussed, but a definite forecast is impossible.

Herr Ohlin, in his article in No. 3, discusses the proper meaning to be attached to the word "inflation," which he defines as that rise in prices the causes of which are found on the side of money, that is, are due to a rate of interest below the normal and, other things being equal, finds its expression in an increase in the circulation. By "other things being equal" is meant that no change is assumed in the circulation of commodities, not that their quantity remains unchanged.

The discussion at the Political Economy Club, reported in No. 3, is somewhat reminiscent of various discussions on the problems handled in the safeguarding of Industries Bill. A. W. F.]

Scientia (Bologna).

I. VII., 1921. *Problèmes financiers d'après guerre.* II. Partie: *Prélèvements sur le capital.* C. GINI. The arguments for and against a capital levy are brought together and balanced with remarkable comprehensiveness and impartiality.

Giornale degli Economisti (Rome).

MAY, 1921. *La rendita del consumatore e le sue applicazioni finanziarie.* G. BORGATTA. An appreciation of Marshall's principle of "Consumer's" rent, with applications to taxation. *Le condizioni dell' emigrazioni Ligure.* M. G. MARENCO.

JUNE. *Le norme di organizzazione del lavoro.* V. ALFIERI. Referring to "scientific management" and the psychology of the worker. *Un censimento matelicese del* 1673. M. BOLDRINI. A primitive census.

JULY. *L'organizzazione Aziendale.* V. ALFIERI. A study on the interaction between the parts of a firm or other economic aggregate. *La Rendita del Consumatore.* G. BORGATTA. The study of *Consumer's Rent* as conceived by Marshall is continued, with special reference to problems of taxation.

Metron (Padua).

VOL. I., NO. II. *De la population de Constantinople sous les empereurs byzantins.* A. ANDRÉADÈS. Collecting the rays of statistical light scattered through old records, the learned writer estimates that from the fourth to the twelfth centuries, A.D., the population of Constantinople was rarely below half a million, and sometimes nearer a million. The population of the Byzantine Empire was between fifteen and twenty millions.

La Riforma Sociale (Turin).

MAY–JUNE, 1921. *Un economista agrario: Ghino Valenti. La Ricchezza dall' aspetto energetico.* A. DE STEPHANI. *Sperperi proletari e restrizioni Borghesi.* LEVIO LIVÍ. A contrast between great increase since 1913 in the consumption of luxuries in Prato, a working-class town, compared with Sienna, mainly bourgeois.

Revista Nacional de Economia (Madrid).

VOL. IX., NO. 28. Felipe II. . . . C. V. MEY. Philip the Second as a promoter of economic development. *La gestión económica del Estado en el último sexenio**.* A chapter in the recent financial history of Spain. *El problema del paro forzoso.* A. S. PUIG. On involuntary unemployment. *Las Consecuencias Económicas del tratado de Versailles.* A translation of two chapters of Keynes' *Economic Consequences of the Peace.*

NEW BOOKS.

English.

ANGELL (NORMAN). The Fruits of Victory. A sequel to the Great Illusion. London: Collins. 1921. Pp. 338.

[To be reviewed.]

BOWLEY (ARTHUR L.). Prices and Wages in the United Kingdom 1914–20 (Economic and Social History of the World War). Oxford: Clarendon Press. 1921. Pp. 228.

[To be reviewed.]

CARPENTER (CHARLES). Industrial Co-partnership. Third edition. London: Co-partnership Publishers. 1921. Pp. 102.

[The first edition was published in 1914; the third is enriched by an account of the South Metropolitan Company and its experiences during the War.]

CHAMBASHIDZE (D.). Mineral Resources of Georgia and Caucasia. London: Allen & Unwin. 1919. Pp. 182.

COLE (MARGARET I.). The Control of Industry. (Labour Booklets, No. 4.) London: Labour Publishing Co. Pp. 12.

FELL (E. F.). Wealth and You and I. London: Methuen. 6*s.*

FOX (HENRY). A Philosophic View of the Land Question. London: Kingsley Press. Pp. 211. 5*s.* net.

GRAHAM (WILLIAM). The Wages of Labour. (Cassell's Social Economic Series.) London: Cassell. Pp. 166. 5*s.*

GREW (W. F.). The Cycle Industry. (Pitman's Common Commodities and Industries Series.) London: Pitman. Pp. 123. 3*s.*

HALDANE (VISCOUNT). The Problem of Nationalisation. With an introduction by R. H. Tawney and H. J. Laski. London: Allen & Unwin. Pp. 48. 1*s.*

[The evidence given by Lord Haldane before the Royal Commission on Coal Mines is here reprinted.]

HARE (SIR LANCELOT). Currency and Employment Deflation of the Currency. A reply to the Anti-Deflationists. London: King. Pp. 59. 2*s.* 6*d.*

HARRIS (M. DORMER). A Social and Industrial History of England before the Industrial Revolution. London: Collins. Pp. 227.

[The work belongs to the series of "Continuation Manuals" adapted to the continuation of education beyond the elementary stage. The "consulting editor" of the series, Sir William Ashley, contributes a preface.]

HOBSON (J. A.). The Economics of Reparation. London: Allen & Unwin. Pp. 32. 1*s.*

[Severely criticising the proceeding of the Allies, the writer recommends providing assistance in the shape of transport, coal and credit to Germany and referring the determination of her liabilities to an impartial Neutral Commission.]

JEFFREY (E. J.). Breaking Point. Foreword by G. D. H. Cole. London: Parsons. Pp. 159. 4*s.* 6*d.* net.

JONES (WALTER). Capital and Labour. London: King. 2*s.* 6*d.*

KAHN (OTTO H.). Pressing Problems and Some Suggestions. New York: 52 William Street.

KAHN (OTTO H.). Reflections of a Financier. With an introduction by Right Hon. J. H. Thomas, M.P. London: Hodder & Stoughton. 10*s.* 6*d.*

KEITH (A. B.). War Government of the British Dominions. (Economic and Social History of the World War.) Oxford: Clarendon Press. 1921. Pp. 353.

KELTIE (SIR JOHN SCOTT) and EPSTEIN (M.). The Statesman's Year-book. Statistical and historical annual of the States of the world for the year 1921. London: Macmillan. 1921. Pp. 1544.

[The fifty-eighth issue of this valuable manual presents information respecting all the States of the world, of which there are now sixty-four; a great or small "independent entity"—The British Empire or Fiume—each country for one.]

LE BON (GUSTAVE). The World in Revolt: a Psychological Study of Our Times. Translated by Bernard Miall. London: Fisher Unwin. 12*s*. 6*d*. net.

LIPSON (E.). Increased Production. (The World of To-day.) London: Oxford University Press. Pp. 71.

[Increased production is connected with the improvement of the economic position of the workers. "If the distribution of wealth were improved the stability of industry would be enormously increased." "If the autocracy of the employer were gradually transformed into a constitutional monarchy in which responsibility increasingly devolved upon the workers, the result would be to diminish the present friction between capital and labour, and to supply the greatest possible incentive to the workers to increase production."]

MELVILLE (LEWIS). The South Sea Bubble. London: D. O'Connor. 25*s*.

MOUSLEY (E. O.). An Empire View of the Empire View of the Empire Tangle. With preface by the Right. Hon. W. F. Massie, Prime Minister of New Zealand. London: King. 1921. Pp. 87.

[The writer is a New Zealander who completed his education at Cambridge. The problems before the Imperial Conference 1921 are considered.]

OLDHAM (PROFESSOR C. H.). The Present Taxable Capacity of Ireland. A paper read to the Statistical Society of Ireland. Dublin: Ponsonby. 1921. Pp. 30. 1*s*.

[The methods for measuring taxable capacity used in 1896 have become faulty through change of circumstances. By corrected reasonings it is argued that the taxable capacity of Ireland relatively to Great Britain is now 1 : 30–31, that of £50,615,000 estimated to have been contributed by Ireland in 1919–1920 over £18,500,000 was over-taxation. See above article by Sir J. Stamp.]

OSBORNE (SIDNEY). The Problem of Upper Silesia. With five maps. London: Allen & Unwin. Pp. 180.

[Mr. Osborne is the author of *The Upper Silesian Question and Germany's Coal Problem*.]

PLUNKETT (RIGHT HON. SIR HORACE). Oxford and the Rural Problem. (The first Sidney Ball Memorial Lecture. Barnett House Papers, No. 6.) Oxford: University Press. 1921. Pp. 18. 1*s*.

[The treatment of the rural problem in Ireland offers an object lesson to the English-speaking world.]

Political Economy Club. Founded in London 1821. Minutes of Proceedings 1899–1920, Roll of Members and questions discussed 1821–1920, with documents bearing on the history of the Club.

[The history of the Club is illustrated by extracts from diaries and letters. The records of the past are made to live in the Introduction signed H. H. In the Conclusion signed Henry Higgs many interesting reminiscences are added.]

RALPH (F. H.) and GRIFFITH (W. J.). A Digest of British Economic History. London: Murray. 5*s*.

RICE (F. A. B.). Sugar and Sheep. A light-hearted history of a red-hot time. Brighton: Southern Publishing Co. 2*s*. 6*d*.

[By the late Food Controller for Brighton.]

SALTER (J. A.). Allied Shipping Control. An Experiment in International Administration. (Economic and Social History of the World War.) Oxford: Clarendon Press. 1921. Pp. 372. [See note above, p. 412.]

SNOWDEN (PHILIP). Labour and the New World. (Cassell's Social Economic Series.) London: Cassell. Pp. 316. 7*s*. 6*d*. net.

STOCKS (M. D.). The Meaning of Family Endowment. London: Allen & Unwin. Labour Publishing Co. Pp. 45. 1*s*.

STOCKS (M. D.). The Industrial State. A Social and Economic History of England. (Continuation Manuals.) London and Glasgow: Collins. Pp. 319.

[To be reviewed.]

WELBOURNE (E.). A Social and Industrial History of England. Modern Times. London: Collins. Pp. 212.

[Part of the "Continuation Series" mentioned with reference to Mr. Harris' book above.]

WOLFF (H. W.). Rural Reconstruction. London: Selwyn & Blount. Pp. 363. 15*s*.

American.

BAKELESS (JOHN). The Economic Causes of Modern Wars. (Williams College David A. Wells Prize Essays, No. 6.) Williams College. 1921. Pp. 265.

BAKER (CHARLES W.). Government Control and operation of industry in Great Britain and the United States during the World War. (Preliminary Economic Studies of the War, edited by D. Kinley.) Carnegie Endowment for International Peace. New York. Oxford University Press. 1921. Pp. 138.

BERDAHL (CLARENCE A.). War Powers of the Executive in the United States (University of Illinois Studies). Urbana: University. 1920. Pp. 296. $ 2·25.

CLARK (EDGAR E.). Inter-State Commerce. Testimony given before the Senate Committee, with introduction by Francis B. James. Washington: Byrne. 1919. Pp. 262.

GENGENBACH (EDGAR). Common Sense *v*. Prohibition in Railroad Rates, 1921. With introduction by Francis B. James. Washington: Byrne. 1921. Pp. 40. 25 cents.

JAMES (FRANCIS B.). Some phases of the Transportation Problem (American National Economics). Washington: Byrne. 1921. Pp. 58. 25 cents.

French.

BOSSIÈRE (RENÉ E.). Le règlement d'avariés du grand abordage. Paris: Rousseau. 1921. Pp. 36.

[It is proposed to regulate compensation for losses caused by war according to the principle of "general average" as applied in shipping.]

BOURBEAU (DR. MARCEL). La Bourse des Valeurs de Paris pendant la Guerre (1914—20). Paris: Pichon. 1921.

GIDE (CHARLES). Consumers' Co-operative Societies. Translated from the French by the Staff of the Co-operative Reference Library, Dublin. Manchester: Co-operative Union. 1921. Pp. 251.

GUYOT (YVES) et RAFFALOVICH (ARTHUR). Inflation et Déflation. Paris: Alcan. 1921. Pp. 278.

[To be reviewed.]

MAWAS (ALFRED). Le Système monetaire et le change Anglais depuis la Guerre. Paris: Giard. 1921. Pp. 406.

MICHELS (ROBERTO). La theorie di Marx de la miserie crescente. Turin: Bocca. 1922 (sic). Pp. 244.

[Purporting to be a contribution to the history of economic doctrines.]

German.

LIEFMANN (R.) Kartelle und Trusts. Stuttgart: Moritz. Pp. 310.

Italian.

CRESPOLANI (R.). Avocazione allo stato dei profitti di guerra Rome.

FLORA (FREDERICO). Manuele della Scienza delle Finanze. Leghorn: Guisti. 1921. Pp. 936.

[The sixth edition of a work published in 1893; revised and enlarged. The author is Professor in the University of Bologna.]

GINI (CORRADO). Problemi sociologici della guerra. Bologna: Zanichelli Pp. 300.

LORIA (ACHILLE). Aspetti sociali ed economici della guerra mondiale. Milan: Vallardi. 1921. Pp. 458.

MERRATESTA V. Carbone et elettricità in Italia-Città di Castello.

THE ECONOMIC JOURNAL

DECEMBER, 1921

WEATHER AND HARVEST CYCLES

In an article published in THE ECONOMIC JOURNAL for March 1920, and supplemented by a note in the June issue, I called attention to certain figures relating to British exports, to prices of food as compared with prices of other articles, and to barometric pressures, which appeared to suggest the existence of a regular meteorological cycle affecting harvests.[1]

The statistics given in those articles related to the last sixty or seventy years. I stated, however, that the suggestion made by them appeared to be supported by such records as I had up to then investigated relating to the prices of corn in earlier centuries. I have now collected more information as to corn prices, and submit this as a further step in the investigation of weather periodicities.[2]

This information is summed up in the chart printed below, and representing the yearly fluctuation of wheat prices in Western and Central Europe from 1500 to 1869. Considerations of space exclude any account of the sources used and the presentation of any but the final and summary figures. I can only say that they are based on lists of prices for long periods of consecutive years at nearly fifty separate places in England (4), Scotland (4),

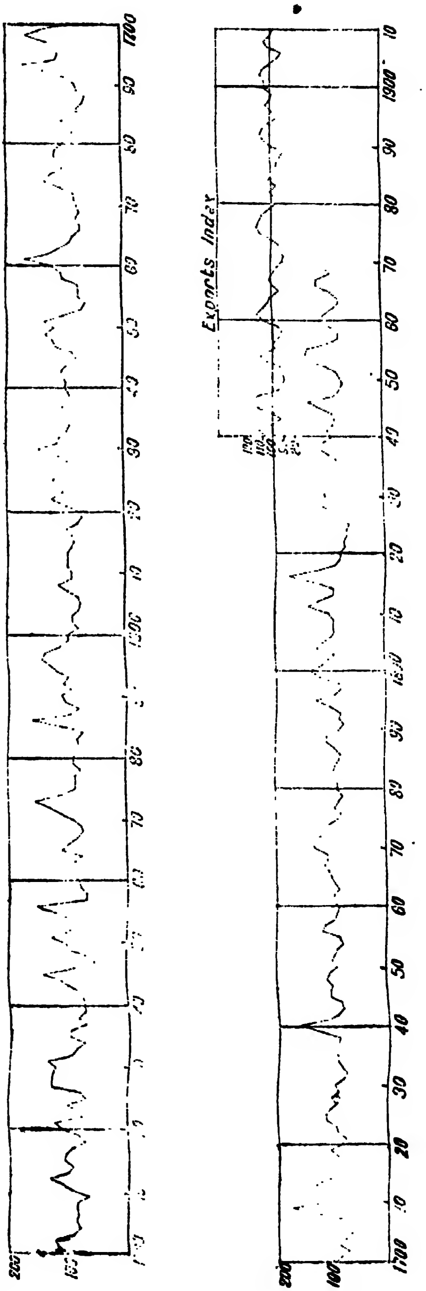
[1] In the issue of THE ECONOMIC JOURNAL for March 1921 Mr. W. Bryant has criticised those articles, and particularly my use of certain barometric statistics. I venture to think, however, that he has not quite appreciated my point in using them A period of 15·3 years clearly cannot be demonstrated by statistics covering 40 years, *i. e.* only two complete revolutions of the period, and I never thought it could. What I did was to show in certain economic records five successive fluctuations of this length (15·3 years), and then that the three minima for which comparison could be made practically coincided with minima of barometric pressure in the greater part of the civilised world. Nor is it the case (as Mr. Bryant says) that I "curiously ignored" the South American statistics which would have corrected my results and evened out the fluctuation. In my first article I specifically referred to those statistics, and gave the obvious reason for not combining them with those for the Eastern Hemisphere.

[2] In collecting these statistics I have been helped by a grant from the Department of Scientific and Industrial Research.

Holland (2), Flanders (5), France (11), North Germany (14), South Germany (4), Alsace (2), Bohemia (1), and Austria (1), as well as on official averages for whole countries, when these become available. The bracketed figures show the number of separate places represented. The price lists have all been printed before in separate books, pamphlets or periodicals, but never collected even for a single country. I have used Thorold Rogers' work only to provide averages for England before 1593 and material for two or three lists; d'Avenel's figures for France I have not been able to use at all. For the present purpose the prices have been combined, by conversion into index numbers on the basis: Mean of 1700–45 = 100, and the general trend has been eliminated, as far as possible, by showing the index number for each year as a percentage of the mean for the period of 31 years of which it is the centre. These percentages are set out graphically on the chart as indices of the yearly fluctuation of wheat prices. The years are "crop years," that is to say, the index for any given year represents so far as is possible the average price at which the crop of that year was sold. In comparisons with other records the "crop year" is taken as beginnning on 1st September. Thus, 1897·33 in this notation corresponds to 1st January 1897, 1897·00 to 1st September 1896. All dates in this article refer to crop years unless the contrary is indicated.

The chart shows a curve with a number of well-marked peaks of comparable height, running to a maximum of 178, and many minor elevations. There can, I think, be no doubt that these peaks and elevations reflect substantially the harvest conditions of the year to which they relate. This is clear *a priori*, having regard to the very wide field from which the figures are drawn. A siege of a single town as of Paris in 1590 may cause a rapid rise and fall of prices there, but the fate of a single town does not seriously affect the general index number. A general war like the Thirty Years War, or that of the Napoleonic period, whether accompanied or not by an orgie of currency inflation, may raise rapidly or gradually the general level of prices, but after such a widespread destruction of goods and depreciation of money, prices cannot show a rapid and comparable fall. The only cause which can reasonably account for the characteristic peaks of the curve before us is a fluctuation in the yield of harvests. That this was, in fact, the cause can be shown *a posteriori* practically in all cases by historical records; the main peaks and the minor elevations alike are almost all

FLUCTUATION OF
WHEAT PRICES IN WESTERN AND CENTRAL EUROPE,
1500–1869,
WITH EXPORTS INDEX, 1840–1910.



identified with well-known years of famine or harvest failure, generally attributed to inclement weather.

This does not mean that the disturbing influence of wars, inflations, and the like has been or can be completely eliminated. Undoubtedly, for instance, the price of the year 1617, by its position just before the outbreak of the Thirty Years War, appears in the curve too low relatively to those of 1622 and 1608, but all three years were equally beyond doubt seasons of dearth. The index for 1651, again, is probably raised unduly by the destructive but short-lived Revolt of the Fronde; 1804 and 1805 are suspect, for they coincide with Napoleon's lightning strokes across Europe. In the last seventy years (after 1800) another disturbing influence—the credit cycle—begins to show itself, and cannot be eliminated by any simple method. The character of the curve is visibly altered in these later years; beyond 1869 it could not without correction be trusted as an indication of harvest conditions.

In the first fifty years the basis of the price index is rather narrow, no satisfactory figures being available from France before 1520, or from North Germany before 1550. The most valuable portion of the chart is accordingly that between 1550 and 1800.

Subject to one or two reserves, the chart must be accepted as essentially a reflection of harvest success and harvest failure. What light does it throw on the problem of weather periodicity?

The answer to this question is sought below by two distinct methods. The first is mathematical—a harmonic analysis of the sequence of numbers given in the Appendix Table as indices of fluctuation of wheat prices. The second is arithmetical—an examination of the intervals between peaks on the curve shown in the chart, with reference to known solar or meteorological cycles.

For the harmonic analysis I am indebted to Mr. H. T. Curwen, Lecturer in Mathematics at the London School of Economics and Political Science. *In accordance with the methods used by Sir Arthur Schuster, Mr. Curwen has constructed a periodogram of* wheat-price fluctuations; his work is not complete, but his first results are sufficiently striking to be given at once. They are set out in the table headed "Periodogram of Wheat Price Fluctuations," with a brief explanation of the formulas used.

The observations, *i. e.* the index numbers of price fluctuation (t) were arranged in m rows of p observations (so that $mp = N$,

the total number of observations), and were dealt with as follows :—

$$\begin{array}{llll} t_0, t_1 & \cdot \; \cdot \; \cdot \; \cdot \; \cdot \; \cdot \; \cdot & t_{p-1} \\ t_p, t_{p+1} & \cdot \; \cdot \; \cdot \; \cdot \; \cdot \; \cdot & t_{2p-1} \\ t_{(m-1)p} & \cdot \; \cdot \; \cdot \; \cdot \; \cdot \; \cdot & t_{mp-1} \end{array}$$

Sum of Columns $T_0, T_1 \; . \; . \; . \; . \; . \; . \; T_{p-1}$

Then
$$a = \frac{2}{p}\sum_{c=0}^{p-1} \frac{T_c}{m} \cos \frac{2s\pi}{p} c$$
$$b = \frac{2}{p}\sum_{c=0}^{p-1} \frac{T_c}{m} \sin \frac{2s\pi}{p} c$$
$$r^2 = a^2 + b^2.$$

The values of a, b, and r^2 for each integral value of p from 2 to 36 ($s = 1$) were first calculated both for the whole sequence of observations from 1545 to 1844 (N = 300) and for each half of the sequence—1545 to 1694 and 1695 to 1844—taken separately. The same elements for intermediate values of p were obtained by taking second or third harmonics ($s = 2$ or $s = 3$) but only for the whole sequence. Thus for $p = 15\frac{1}{2}$, r^2 represents the second harmonic for 31 ($p = 31$, $s = 2$), and for $p = 15\frac{1}{3}$ it represents the third harmonic for 46 ($p = 46$, $s = 3$).

The table gives a, b and r^2 for the whole sequence 1545 to 1844, and r^2 only for each half sequence.

In order to test the probability of obtaining any given amplitude the standard deviation (σ) of the original observations was calculated, and the expression $\frac{4\sigma^2}{N}$ obtained as representing the mean of the square of amplitude for comparison with the actual amplitudes for different values of p. Then, if the order of the original observations is a random one, the chance of obtaining for any value of p an amplitude equal to or greater than r is e^{-k} where $k = \frac{r^2 N}{4\sigma^2}$. For the sequence 1545 to 1844, $\sigma^2 = 419{\cdot}83$.

Considering first only integral values of p, to which examination was confined in the first instance, the number of 15 years stands out, as yielding very large amplitudes both for the whole sequence and for each of its halves. Analysis at half-yearly intervals (made only for the whole sequence) gives a materially greater amplitude at $15\frac{1}{2}$ years, and finally that at $15\frac{1}{3}$ years proves greater still. The square of the amplitude is $82{\cdot}31$. The maximum phase is given (by the formula $\tan \phi = \frac{b}{a}$) at 246° 50′

Periodogram of Wheat Price Fluctuations (Western and Central Europe).

Period. p.	Sequence of Observations 1545–1844. a.	b.	$r^2 (= a^2 + b^2)$.	Sequence 1545–1694. r^2.	Sequence 1695–1844. r^2.
2	+ ·11	·00	·01	·44	·21
3	− ·29	− ·39	·23	1·28	·03
4	+ 1·47	− 1·13	3·44	2·87	10·64
4¼	− 1·15	− 1·71	4·23	—	—
4½	+ 1·64	+ 1·05	3·79	—	—
5	+ 1·85	+ ·99	4·43	11·84	4·94
5½	− ·90	+ 1·27	2·42	—	—
6	− 3·50	− ·12	12·29	14·67	23·41
6½	+ 1·41	+ 1·22	3·47	—	—
7	+ 2·44	− 2·11	10·43	13·58	17·15
7½	− ·50	+ ·23	·78	—	—
8	− 2·79	+ 2·06	12·05	4·45	9·97
8½	+ ·99	+ 2·92	9·51	—	—
9	− 1·12	− 1·07	2·39	14·04	2·02
9½	+ ·83	+ 1·71	3·63	—	—
10	− 2·29	− ·38	5·39	37·93	48·56
10½	+ 2·47	− 1·82	9·42	—	—
11	− 4·06	− 4·95	40·93	76·02	7·76
11½	− 2·56	− ·36	6·68	—	—
12	− 3·18	− 3·16	20·11	21·69	35·45
12½	− 1·80	+ 4·04	19·57	—	—
13	+ 3·77	− 3·68	27·81	79·72	82·57
13½	+ 1·78	− 2·02	7·26	—	—
14	+ ·15	− ·01	·02	13·06	32·17
14½	− 3·45	− ·19	11·92	—	—
15	+ 6·32	− 2·72	47·28	70·38	138·25
15⅓	− 3·57	− 8·34	82·31	—	—
15½	− 8·11	− 3·76	79·87	—	—
16	− ·48	+ 4·46	20·14	37·73	2·41
17	+ 3·33	− 1·28	29·35	59·33	24·68
18	− 3·94	+ 1·31	17·26	73·39	4·76
19	+ 1·19	+ ·31	1·50	26·30	15·93
20	− 5·49	+ 1·80	32·44	18·57	29·74
21	+ ·78	− 2·39	6·33	45·98	12·40
22	+ 2·14	− 1·71	7·50	17·05	8·92
23	− 2·15	− 1·71	7·54	3·97	33·98
24	+ ·44	+ 5·13	26·48	7·58	40·59
25	+ 3·87	− ·20	14·95	44·05	30·39
26	+ 1·07	− 1·10	3·35	14·14	19·66
27	+ 1·00	− ·49	1·25	6·42	6·96
28	+ 1·17	− 80	2·00	24·35	6·79
29	+ ·75	− 2·12	5·05	33·54	10·36
30	− 1·52	− 2·36	7·86	4·75	11·81
31	− 2·19	+ ·48	5·04	23·10	9·81
32	+ ·31	+ ·98	1·05	28·04	19·25
33	+ ·47	− 1·61	2·82	13·49	36·02
34	− 3·01	− 1·40	11·04	6·41	36·70
35	+ 3·78	+ 1·79	17·52	6·95	37·67
36	− 1·65	+ 4·85	26·27	16·29	39·58

or 10·51 years from the origin; taking this at 1545·50 the first maximum occurs at 1556·01. The value of k is 14·7 and the probability of obtaining a square of amplitude as great as 82·31, if the order of the observations is a random one, is $e^{-14\cdot7}$ or $\frac{1}{2,422,000}$.

This amounts to a demonstration that the order of the observations is not a random one, but that they are arranged on some principle; odds of $2\frac{1}{2}$ millions to one represent an almost superfluous degree of certainty. It is not equally certain that the departure from randomness takes the form of periodicity; theoretically, some other explanation may be within the bounds of reasonable chance. But the most natural, if not the only conceivable explanation, of so emphatic an appearance of periodicity is real periodicity; if harmonic analysis can by itself ever prove the existence of a physical period it seems to do so here.

Here, however, harmonic analysis does not stand by itself. The period shown by harmonic analysis of wheat price fluctuations from 1545 to 1844 is identical in length and phase with that which in March 1920 I derived from the statistics of British exports from 1830 to 1913, before I had ever looked at corn prices. The cycle which I named then was one of "between 15·2 and 15·4 years," reaching maxima in 1832, 1847, 1862, 1877–8, 1893, 1909. As the economic conditions of any one year are influenced less by the harvest of that year than by the harvest of the year before, each of these dates must for comparison with the "crop years" of this article be put a year earlier, to 1831, 1846, 1861, 1876–7, 1892, 1908. The continuity between this cycle and that shown by harmonic analysis in the wheat prices, and appearing unmistakably in the original observations, is absolute.

The period of $15\frac{1}{3}$ years shown in the periodogram is marked out in the observations by peaks at 1556, 1586, 1617, 1648–9, 1678, 1693, 1709, 1724–5, 1740, 1756, 1770–1, 1800–1, 1816, 1830–1, 1846. These form a series of 15- or 16-year intervals all but unbroken from 1678 to 1846,[1] and continued backwards by 30- or 31-year intervals to 1556.

To show the continuity of this series of 15- or 16-year intervals up to 1846 with those yielded by the exports statistics after that date, I have plotted at the end of the chart a curve based on the "exports index" figures described in my first article. I first calculated continuous 15-year averages of the "new exports index" (column 4 on pp. 24–5 of THE ECONOMIC JOURNAL for March 1920), then expressed the figure for each year as a percentage of the mean for 15 years of which it is the centre (so as to eliminate the trend), and finally deducted this percentage

[1] The only gap is at 1785, and is rather remarkable; the weather then and in 1786 was abnormally bad (Annual Register for 1786), but harvests and prices in Europe seem to have been little affected.

from 200 (so as to invert the curve). The resulting figures are plotted from 1840 to 1910. I have not, beyond 1879, used the actual figures given in my first article (based on Sauerbeck's price index), but revised figures based on the Board of Trade index; there is no substantial difference between the two at the important years 1876-7, 1892, 1908. According to the argument in that article, a high point on the curve as now plotted should correspond to deficient harvests and a low point to good harvests, in those countries, taken as a whole, to which British exports go. Actually, in the 30 years' overlap (1840–69) there is close agreement between this curve and that of wheat prices.

The maxima after 1816 reached by taking a cycle of exactly $15\frac{1}{3}$ years from 1556·01 are 1831·35, 1846·68, 1862·01, 1877·34, 1892·67 and 1908·00. For several reasons I am inclined to put the exact length at something less than $15\frac{1}{3}$ years; 15·3 is probably a better figure to use, and is of course quite consistent with the harmonic analysis so far as it has been carried at present.

Mr. Curwen's table shows interesting amplitudes also for one or two other values of p, notably at 10, 11, 13, 17 and 20 years. At 11 years, taking the whole sequence, $r^2 = 40{\cdot}93$, $k = 7{\cdot}3$ and $\varepsilon^{-k} = \frac{1}{1,480}$, *representing in itself considerable probability of a* true period. When, however, the two halves of the sequence are examined separately, the importance of the period is seen to be due entirely to the first half (1545–1694), where it overshadows even the $15\frac{1}{3}$-year period; in the second half (1695-1844) it is absent or insignificant. This is curiously like the behaviour of the 11-year period in Sir Arthur Schuster's analysis of sunspots. The 11-year period was all but invisible in the first half of Sir Arthur's sequence (1750 to 1825), but dominated the second half (1825 to 1900) completely, and so was prominent in the sequence as a whole (1750 to 1900). Meteorological cycles are often meteoric both in their emphasis and in their transience. By way of contrast at 13 years (and again at 10 years), there are large amplitudes for each half of the sequence taken separately, combined with relatively low amplitudes for the whole sequence. This suggests periods near but not very near to these two values of p.

The main result of Mr. Curwen's analysis is to confirm in the strongest possible way my original suggestions. Unless one is prepared to discard the method of the periodogram altogether, as a means of discovering periodicity, it is difficult to doubt that

there is a physical reality behind this appearance of a period of about 15·3 years in the yield of harvests.

But the 15·3-year period, even though it be real, is neither simple nor homogeneous. Three distinct sets of considerations compel us to seek beneath its surface for complex causes :—

First, the recurrences of the 15·3-year cycle, as they appear in economic records, are of varying intensity; in any given series of years alternate recurrences (at distances of 30·6 years) are more marked than those that intervene, as a man walking with a burden may press more heavily with the right foot than the left, and as he shifts his burden may later press more heavily with the left foot than the right. With the outstanding famines of 1556, 1586, 1617; 1630, 1661, 1693; 1709, 1740, 1770, 1800; and 1816 and 1846; we get almost the appearance of a 30·6-year cycle shifting its phase abruptly at times by about half a revolution.

Second, a cycle of 15·3 years has not, so far as I am aware, been found in any meteorological records. On the other hand, as will appear below, there is a singularly close arithmetical relation between 15·3 (or 30·6), and the lengths of some well-supported solar or meteorological cycles, such as 5·1 $\frac{(15\cdot 3)}{3}$; 4·37 $\frac{(30\cdot 6)}{7}$; and $2\frac{3}{4}$ $\frac{(30\cdot 6)}{11}$ years.

Third, the evidence of prices and famines before 1545, though far from complete, suggests on the one hand that the 15·3- or 30·6-year cycles with their present phase were not then in action, and on the other hand that something akin to them but different was in action.

An explanation both of the 15·3-year period itself and of these three sets of facts has now to be attempted, by an examination of the chart of price fluctuations and of the figures that it represents.

Period of 4·374 *Years.*—The analysis may conveniently be begun by considering certain pairs of well-marked peaks each with an interval of 13 years between the two peaks, namely, 1573 : 1586, 1617 : 1630 (with a continuation in 1643), 1661 : 1674 (with a possible precursor in 1648), 1748 : 1761 and 1853–4 : 1866–7. There are also 13-year intervals between markedly high points at 1538 : 1551 and 1757 : 1770 (continued in 1783). The intervals themselves, reckoning from the first year of each pair or group, are separated by distances of 35, 44, 44, 87, 9 and 96 or 97 years. These " distances " are not themselves multiples of anything like thirteen years, but they are one and all close multiples of some-

thing over $\frac{13}{3}$, *i.e.* $4\frac{1}{3}$ years. They are not close multiples of $\frac{13}{2}$, $\frac{13}{4}$, $\frac{13}{5}$, or $\frac{13}{6}$. Every one of these 13-year intervals would fit the recurrences of a cycle of just over $4\frac{1}{3}$ years, and would fit no other cycle of more than two years in length. Measuring from 1538 to 1866·5 we get 75 revolutions of 4·38 years; taking one maximum as falling near 1866·5 we get another maximum 30·6 years (= 7 revolutions) later, falling somewhere in the harvest year 1897, that is to say, roughly in the twelve months following September 1896. If all these similar intervals have any common cause it must be a cycle of that length and phase. They fit no other cycle.[1]

A physical cycle precisely corresponding to these requirements exists. Among the periods found by Sir Arthur Schuster[2] in the sunspots, by the method of the periodogram, is one to which he assigns a length of 4·38 years and a maximum phase at 1897·00, which would correspond to 1897·33 if we reckon by crop years (beginning on September 1st). It is not one of the more important solar periods, such as 4·77, 8·34, and 11·12 and its harmonics, and it is unlike them in not being accurately divisible into 33·37 years. This is the sort of result to be expected. Solar and terrestrial phenomena are clearly connected, but the causes which give special prominence to particular cycles in the sunspots are inoperative on the earth.[3]

Other considerations give as the most probable length of the cycle 4·374 years with a margin of error $\pm$ ·010 years. It will be convenient to assume this length for the future, taking the maximum phase to correspond exactly with that determined by Sir Arthur Schuster for the sunspots, namely, January 1st, 1897, or 1897·33, in crop years. It will be convenient also to designate this cycle by the letter A.

The 13-year interval is not itself a substantive period, but only a manifestation of the A cycle. Is there any reason why this cycle should tend to show itself in 13-year intervals?

[1] In the fifteenth century the only consecutive price records—for Flanders—show 13 years intervals at 1424 : 1437–8 and (less clearly) at 1455 : 1468–9 : 1481–2, *i. e.* at distances of 114 years (26 × 4·38) and 83 (19 × 4·38) years from 1538. There appear to be no other 13-year intervals in the records except at 1502 : 1515 : 1528, when the index rests on a very narrow basis, and 1841 : 1854, where the latter year is suspect as coinciding with the Crimean War. The "exports index" shows a 13-year interval at 1884 : 1897.

[2] Philosophical Transactions of the Royal Society, vol. 206A (1906).

[3] Since I began this investigation Mr. J. Baxendell has found a cycle of 4·37 years in the rainfall at Southport, but with the curious feature that its maxima occur at the minima of Sir Arthur Schuster's sunspot cycle, and so of the suggested cycle in wheat prices.

One reason at once suggests itself. Three revolutions of A =13·12 years, *i. e.* make only very little more than 13 complete years. The effect of any solar cycle in producing a meteorological disturbance and still more in spoiling the harvest must depend upon the season of the year at which it operates. If, in any one year, this particular cycle has reached its maximum at a season making it particularly destructive, it will recur within six weeks of that time about 13 years later and may have a similar effect.

If, however, there is anything in this suggestion, it follows that at the eighth revolution of A when it makes a yet closer approach to a complete number of calendar years (8A = 34·992 = 35 years less 3 days) we should find another set of regular intervals. This is exactly what we do find. The years 1573, 1608, 1643, 1678, 1713, 1748, 1783 are all peaks on the curve of wheat prices and form an unbroken and remarkable series of 35-year intervals, fitting the requirements exactly in length as well as in phase. The series can, in fact, be continued backwards through 1538, 1468, 1433, with an apparent break at 1503, and forwards to 1853 after a break at 1818.

Even more striking is a series of 30 or 31 year intervals: 1556, 1586, 1617, 1648–9, 1678–9, 1709, 1740, 1770–1, 1800–1, which includes most of the worst famines of the whole period. The average length of the interval, reckoning from 1556 to 1800·5, is 30·6 ± ·2. This is identical with seven revolutions of A (= 30·62) and fits the required phase of A. The other constituent of this series of 30·6-year intervals will be identified just below as $\frac{30 \cdot 6}{6}$ or approximately 5·1.

Another well-marked interval is one of 74 to 75 years, shown in 1438, 1512, 1586, 1661, 1735 with earlier famines in 1289 and 1363. Yet another is one of 48 years, 1565, 1613 (well marked in England though not in the general figures), 1661, 1709, 1757. All these years are years of maximum phase for A; the intervals represent almost exactly 17A (= 74·36) and 11A (= 48·11).

We have already mentioned a large proportion of the bad harvests from 1500 to 1870, and several others not already named are found like these to lie at maximum phases of the period A. These include 1521, 1529, 1551, 1625. Of the 26 "major" peaks (reaching 125 and upwards) 16 coincide with maxima of A. The steps leading to the determination of this period have been set out in some detail. In the rest of this article I must content myself with a more summary account.

Period of 5·11 *Years.*—Next to the period already considered, the period most strongly suggested by the economic records is one of about 5·1 years. The most probable length is 5·11 with a margin of error of ± ·05, and the most probable maximum phase is determined by 1709·00. These figures will be assumed in the following discussion, and the period will be denoted by the letter B.

The period B forms the other constituent of the 30·6 year (6A = 30·66 years) interval already mentioned and accounts for 8 out of the 10 major peaks which do not lie at the recurrences of A, namely 1545, 1596–7, 1693, 1698, 1795, 1811, 1816, 1846. The same period accounts for a number of other harvest failures not previously mentioned, such as 1622, 1637, 1703, 1719, 1724.

The meteorological parallel is easy to find. The period most definitely shown of Captain Brunt's recent analysis of the Greenwich temperatures is one of 5·09 years. A period of almost identical length had previously been found by Mr. J. Baxendell in other meteorological phenomena, including the wind and rainfall at Southport. This is, indeed, one of the best established periods in meteorology.

Its exact length, however, cannot be determined with the same accuracy as in the case of A. The length and phase chosen above, namely 5·11 and 1709·00, are such as best fit the economic records. On the other hand, the meteorological records point to something just under 5·1 and a length of 5·06 would be possible. What seems clear is that 7A is not exactly equal to 6B, *i. e.* 30·6 represents not a permanent period but a " conjunction interval." From 1556 to 1800 (and possibly on to 1892) it is continuous. In 1525, and for some centuries before then, the series can hardly be traced at all, but it seems to reappear with exact agreement of phase in the ninth, tenth and eleventh centuries. These phenomena could, I think, be explained most simply by a very gradual increase in the length of B, while A remained constant, so that 6B was <7A till the beginning of the twelfth century and since then was >7A. Alternatively, one of the periods is subject to sudden changes of phase of which one occurred between 1525 and 1545. Mr. Baxendell suspects either a gradual increase in the length of the B period or a sudden alteration of phase from time to time.

Period of 2·74 *Years.*—A cycle of 2·74 years (described below as C) with a maximum phase at 1709·78 is also suggested by the economic records.

Of the 26 major peaks between 1500 and 1870, 24 lie on either

A or B, and most of the worst famine years lie on both. There remain only 1531 and 1649 (as distinct from 1648). These are separated by 118 years with 1586 breaking in at 55 years. The same distance of 118 years broken in the same way at 55 years (1748) separates the two striking 5-year pairs 1693–8 and 1811–16, which though they actually lie on B clearly call for some additional explanation of their extreme severity. Moreover, 1531, 1649, and 1693 are each preceded at 19 years by another major peak (1512, 1630, 1674). It is inevitable to seek a single explanation of these suggestively similar events, and the explanation is found at once by an analysis of the following 19-year intervals:[1]—

(1512)	(1630)	(1674)	(1748)	(1811)	(1841)
(1531)	(1649)	(1693)	(1767)	(1830)	(1860)

7C = 19·18 and the distances between these intervals 118 (43C = 117·82), 44 (16C = 43·84), 74 (27C = 73·98), 63 (23C = 63·02) and 30 years (11C = 30·14), are all remarkably close multiples of the same period. No other period will fit this series of intervals except one of just over 3·7 years.

11C = 30·14 years, and with this period in conjunction with A and B we seem to get far towards a full explanation both of the alternations in the severity of the famines of the 30·6-year series and of the way in which other bad failures occur at 5, 11 or 16 years distance from the major epochs of that series.

For one or two 30-year intervals, C may keep pretty closely in gear with A and B, but thereafter gets out of gear for two or three intervals and later gets back again. If we set out to write down the assumed dates for A, B and C, with the lengths and phases given above, we find that the occasions since 1500 upon which the maximum phase of C is most distant from the phase of the 30·6-year interval are in 1525, 1648, 1678, 1831, 1861, *i. e.* just the years when the 30·6-year interval is least prominent; while the occasions on which it is nearest are 1556, 1586, 1709, 1739–40, and 1770, *i. e.* just the years when the 30·6-year interval is most prominent. This suggests that when C is in opposition to A it tends directly to neutralise its effects. On the other hand, just as C is getting out of gear with the 30·6-year interval it gets into position to make a specially close conjunction with A 11 or 16 years before (in 1545, 1693 and 1698) or 11 or 16 years after (in 1596–7 and 1811, 1816).

[1] The only other 19-year interval in the chart is at the very beginning—1502–1521—and is to that extent open to suspicion.

Apart from this, an overwhelming majority of all the famines recorded appear to be associated with recurrences of C.

The meteorological evidence for a period of just about this length is abundant, though not perhaps always of the first quality. According to F. H. Bigelow, a 2·75-year period "is more at the basis of the seasonal variations of the weather conditions in the United States than anything else, so that in long-range forecasting this period must be very carefully considered."[1] The same period was found by H. Arctowski to be much the most important in the temperature variations of the tropics. H. Hansen and F. Nansen over a long period of years get an average period of 32 to 33 months (*i. e.* 2·75 or under) in the temperature at Batavia.[2] It is true that they identify this, as Bigelow does, with one quarter of the sunspot period, which on Schuster's figures would be 2·78 years. The economic records, however, quite definitely postulate something less than 2·75 years, and in so doing are in highly significant agreement with the actual figures both of Arctowski and of Hansen and Nansen.

Period of 3·71 *Years.*—Attention has already been called to the intervals 19, 48 and of 74 to 75 years. The most probable explanation of all these and of other phenomena lies in the assumption of a period of 3·71, with phase near 1708·84, identified hereinafter as "D." A period of this length has been found in the activity of the solar protuberances, and by the Lockyers and Hansen and Nansen in many meteorological phenomena. According to Arctowski, it plays a very great *rôle* in the variations of the terrestrial atmosphere.[3] The evidence for it, however, in the economic records is less definite than in the case of A, B, and C, and some of the intervals (in particular 37 and 74 years of which it is assumed to form a part) might conceivably be explained by a period of just over 6·0 years, for which there is also a good deal of meteorological evidence. In any case it is necessary to allow a fairly liberal margin of error, say ± ·07 of a year in the length assigned to this period. There is a good deal of evidence in favour of a period approaching 3·78 years, which was the actual period found in the sunspots by Sir Arthur Schuster.

Further analysis of the economic records may suggest the operation of yet other periods. For the present, we may content

[1] *American Journal of Science* (1908), pp. 413.

[2] *Temperatur-Schwankungen des Nord-Atlantischen Ozeans und in der Atmosphäre* (1917), p. 188.

[3] *L'enchaînement des variations climatiques* (1909).

ourselves with two calculations which go to confirm the suggestions already made.

The first calculation is suggested by consideration of the greatest famines of all, and particularly those of 1044, 1315, 1438, 1586 and 1709. It is doubtful whether any other harvest failure in the last thousand years of European history can compare with these for severity; each is unquestionably the worst famine of its particular century. From 1044 to 1315 is 271 years; from 1315 to 1586 is 271 years with an intervening famine in 1438, *i.e.* after 123 years; from 1438 to 1709 is also 271 years, divided by 1586 into two portions of 148 and 123 years respectively. Similar intervals occur again and again in the records, *e.g.* 1512 : 1661 : 1783, 1529 : 1651 : 1800 (with earlier famines in 1258 and 1381), 1545 : 1693 : 1816, 1596 : 1719 : 1867, 1608 : 1756 : 1879, 1648–9 : 1770–1, 1698 : 1846, or going back to earlier times in 1125 : 1396, 1145 : 1293–4 : 1416, 1175 : 1446, 1469 : 1617 : 1740, 1477 : 1625 : 1748, 1481–2 : 1630. The significance of these intervals is quite unquestionable; it would be hard to find a harvest failure, great or small, which has not another 271, or 148 (occasionally 149) or 123 (occasionally 122) [1] years away from it; the worse the failure the more marked as a rule is this relation. The economic records show throughout an overwhelming tendency for exceptionally severe famines to repeat themselves at intervals of 271 years, and for this interval to be broken into two portions of 148 and 123 (occasionally 149 and 122) years. No other interval, except perhaps the 30·6-year one, is of comparable importance.

Now if we take the lengths of the four periods named above—4·374, 5·11, 2·74 and 3·71 years—and that of the earth's orbital revolution 1·00 as a fifth period, and write down all the multiples of these numbers up to 500 years, we find that much the nearest approach to a common multiple for all five is made at 271·02 [2] years, and that below this figure the nearest approaches are at

[1] The interval of 122 or 123 years was noticed, in connection with the famines of 1315 and 1437–8, by Thorold Rogers, who spoke of it as occurring so often in the records as to suggest the germ of a theory as to weather periodicity.

[2] This figure is obtained as the mean of 271·19 (= 62A), 270·83 (= 53B), 271·26 (= 99C), 270·83 (= 73D) and 271·00. Exact multiples of all the five periods lie here within a total range of ·43 years and an average range of ·16 years from their mean. The corresponding ranges for the other conjunctions are: ·76 and ·26 (at 148·25), ·87 and ·31 (at 122·77), ·98 and ·34 (at 30·22), and ·98 and ·35 (at 240·80). At no other date within the first 300 years do all the cycles fall within a total range of less than one year, and only twice (at 118·03 and 219·11) are they within 1·25 years. Beyond 500 years another very close conjunction (with total range ·45 and average range ·16) occurs at 608·16 years.

148·25, 122·77, 30·22 and 240·80 years respectively. If four periodic factors, of the lengths given above, were all at or near their maximum phase together in any particular year, they would tend to repeat that close conjunction at the same season of the year 271 years later and, less strongly, at the other intervals named. In other words, if the theory advanced above be correct and exceptionally bad harvests are due to the conjunction of three or more cycles of the lengths already determined, then such exceptionally bad harvests must tend to recur at exactly those rather peculiar intervals of 271, 148 or 149, and 123 or 122 years at which, in fact, they do recur.

Further confirmation is supplied by the fact that the only points (within a period of 500 years) at which two close conjunctions of all the periods, *i. e.* two near approaches to a common multiple, occur within a few years of each other, are at about 118 and 123 years respectively. There are between 1500 and 1850 two and only two pairs at major peaks separated by five-year intervals—namely, 1693 : 1698 and 1811 : 1816. The distance between these pairs is 118 years.

The interval of 271 years is not, of course, a true or permanent period. The conjunction becomes less perfect at each repetition; the series 1044, 1315, 1586, for instance, is not continued at all in 1857. Nor does the calculation just given necessarily confirm in all details the previous analysis; it does not even in itself exclude the possibility that one of the four assumed periods A, B, C or D is non-existent or unimportant. But it is strong ground for holding that at least three of these four are operative, and that their lengths have been determined with a high degree of accuracy.

The second calculation brings into account the influence of the seasons. A meteorological cycle with a period such as 4·374 or 5·11 years cannot be expected to show itself in the harvest records at each return. Sometimes the maximum phase, *i. e.* the phase most adverse to the harvest, will occur at a season when the crop is most subject to its influence and will therefore be operative to a high degree. At other times it will occur at a season when there is no crop in the ground, or when the crop is least liable to that particular meteorological influence; it will then be largely or wholly inoperative.

If we write down the successive maximum phases of A, from 1550 to 1801 (for which the statistics are most reliable), we find that, of 58 such phases, 35 appear to be associated with a bad harvest, as shown by a markedly high or rising price of wheat,

while 23 are not so associated. In other words, the cycle is apparently inoperative on four occasions out of ten, a very large proportion of the whole. If, however, we look at these 23 inoperative maxima more closely, we find that not one of them occurs between ·54 and ·73 years from the beginning of the harvest year, that is to say, between March 15th and May 22nd, while only two of them occur between ·54 and ·87 from the beginning of the harvest year, *i. e.* between March 15th and July 15th. In other words, the year may be divided into two portions, one of four months containing 2 only out of 23 inoperative maxima, and one of eight months containing the remaining 21. It may be added that the four months, March 15th to July 15th, contain 15 maxima altogether, of which therefore 13 are operative and 2 inoperative. It is needless to point out that these four months are, in Western and Central Europe, the most critical for the actual growth of the crop. When the maximum of A falls in those months it is associated with a bad harvest in 13 cases out of 15; when it falls outside those months a bad harvest occurs far less certainly and may often be due to another factor.

The correlation thus appearing between the operation of A and the course of the seasons is the more noticeable because both the length of A and its maximum phase were determined quite irrespective of this calculation.

A similar calculation as to B gives a curiously different result. Between 1550 and 1801, the proportion of operative returns is very much greater than for A—35 as against 12 inoperative and 3 doubtful—and there is no apparent correlation with the course of the seasons. This result, if it can be trusted, suggests that the maximum phase of B is less acute and more dispersed than that of A, *i. e.* has an influence over a greater period before and after the precise instant of maximum. Mr. Baxendell had independently come to the same conclusion as to the character of the two cycles, A and B, as shown in meteorological data.

The point just made has an important bearing on the question of methods for analysing harvest data. Just in proportion as a periodic factor is accurate in the date of its return and concentrated in its influence about that date, it will, owing to the seasonal factor, be inoperative at many of its returns. Direct harmonic analysis of such figures as are used here and also of crop yields may thus fail to show a period which actually exists Indeed, any one meteorological cycle in its influence on the harvests may be, and probably is, subject to interference not only by the seasonal cycle (*i. e.* the earth's orbital period), but

also by other cycles, or depends for its influence upon its conjunction with them.

A liberal amount of rain at certain seasons of the year is not bad for the crops, but good or even necessary for their growth; it is only excess of rain that is harmful. If therefore we have two cycles of the same type, but different periods, *e. g.* two cycles each tending to bring rain at a different periodic interval, we may get a bad harvest and high prices only when both cycles reach their maximum phase at about the same time; the other maximum phases of each cycle may be associated with normal or even particularly good harvests and low prices. Mathematical analysis in which each period is sought for separately may fail to show either cycle in the price of corn, and may at the same time show both in the weather.

Again, a bad harvest failure may depend on the combination of two or three independent meteorological factors of different types—*e. g.* a heavy rainfall, a fall in the solar constant, and some special magnetic condition. A true periodicity depending on the conjunction of such disparate causes may not appear in any meteorological records but may appear in corn prices.

Finally, though the most obvious way in which physical factors would affect the harvests is through the weather (*e. g.* by causing at certain periods excessive rain, cold, or storms), another possibility cannot be excluded. Some physical factors, electrical or other, in the sun or in the earth may affect the growth of corn directly without causing an appreciable change in what is ordinarily known as the weather.

In this and in other ways apparent discrepancies between different classes of records may prove to be no discrepancies at all. For these reasons arithmetical analysis such as has been attempted here may prove valuable after mathematical analysis has been exhausted.

The results of this arithmetical analysis may be summarised as follows:

1. The harvests of Western and Central Europe appear to be affected by the conjunctions and mutual interferences of at least two and probably more periodic factors.

2. One of these factors (A) may be determined with considerable accuracy as having a period of $4{\cdot}374 \pm {\cdot}010$ years with a phase adverse to the harvest near 1709·25 (reckoning by crop years); another (B) has a period of $5{\cdot}11 \pm {\cdot}05$ years and an adverse phase near 1709·00. Two other factors are suggested with lesser degrees of probability, namely C, with a period of

$2{\cdot}74 \pm {\cdot}01$ years and an adverse phase near 1709·78, and D with a period of $3{\cdot}71 \pm {\cdot}07$ years and an adverse phase near 1708·84. Periods of almost exactly these lengths have been found independently in astronomical or meteorological phenomena.

3. All these periods are almost exactly divisible either into 15·3 years or its double (30·6), and by their combination have during the past 350 years produced the appearance of a cycle of that length which last reached its maximum in 1908. This 15·3-year cycle, however, is probably not a permanent one; the shorter periods may from time to time slip into new combinations or form a fresh 15·3- or 30·6-year cycle with a different phase.

4. The economic records dealt with in this paper relate only to Western and Central Europe. There is evidence of the operation of some at least of the cycles indicated in other parts of the world. This operation, however, is not necessarily simultaneous; differences of phase, above all in the course of barometric pressures, are manifest.

The mesh of Mr. Curwen's mathematical analysis, as given above, is not close enough for it to throw any light, favourable or unfavourable, on the suggestion of those lesser periods, A, B, C or D. In a sequence of 300 years a true period of 4·38 might fail to influence materially the amplitude even at so near a point as 4·33. A more detailed analysis of the same figures has kindly been undertaken for me by Dr. J. T. Brownlee, but is not complete.

Should this show in the economic records any of the lesser periods named, this will of course be strong confirmation of their reality. For the reasons given, however, a failure to discover one of these periods separately by harmonic analysis of wheat prices would not be decisive against its existence, as an influence on harvests.

The present enquiry confirms very closely the suggestions made in my earlier articles. In those articles I called attention to an apparent periodicity in British export figures of 15·3 years, pointing out at the same time that this apparent period clearly resulted from the operation of certain minor cycles, and that one at least of these cycles was a factor, not of 15·3, but of twice that length of time, nearly 30·6 years. In the present article mathematical analysis shows a period of 15·3 years; arithmetical analysis emphasises 30·6 years as the approximate meeting-point of three or more cycles.

In one respect a modification in the wording of my earlier

suggestions must be made. I then spoke of past experience pointing to the coming of lean years in 1924, 1925 or 1926. The economic records of any year, however, reflect generally the harvest conditions of the year before. If I had now to prophesy I should point to 1923 as likely to be distinguished by excessive rain, cold and bad harvests in Western Europe, and to bring high prices and scarcity in 1924. But the time for prophecy is not yet. There is still time for enquiry.

Conclusion.

There is hardly any enterprise more deluding or more desperate than the search for weather cycles. The gold we gather turns incessantly to ashes. But the 15·3-year cycle seems to have the ring of true metal. As an influence on wheat prices it issues, brilliant and unmistakable, from the crucible of mathematical analysis. It had already been found independently in other figures. It seems to have maintained itself for more than 350 years.

Recognition of a periodicity so marked and so long-lived must affect our whole attitude to the general problem of weather cycles. But it leaves us faced by many and difficult problems. I must be content to end by summarising my present conclusions in three propositions of a descending order of certainty:

First, the yield of harvests in Western and Central Europe from the middle of the sixteenth to the opening of the twentieth century has been subject to a periodic influence or combination of such influences tending to produce bad harvests at intervals of about 15·3 years, the first epoch falling in 1556. This proposition is about as certain as harmonic analysis can make it.

Second, this period of 15·3 years, though corresponding to certain physical facts, is not a permanent one, but arises from a temporary combination of two or more shorter cycles. This proposition, though not certain, is in both of its branches highly probable.

Third, the shorter cycles whose combination has given rise to the 15·3-year period from 1556 onwards, and which are themselves more permanent than their combination, are those named above as A = 4·374 years, B = 5·11 years, and (probably) C = 2·74 years and D = 3·71 years. This proposition is a speculation as to whose plausibility and truth different readers will take different views.

On this last issue we may look for some enlightenment in the near future. The next maximum phase of the 15·3-year cycle is due in 1923, 123 years from the memorable dearth of 1800.

If that cycle is operative and punctual the harvests of Western Europe reaped in 1923 will be generally deficient. If they are up to or above the normal, or if the worst harvest failure comes just too soon, in 1922, or just too late, in 1924, this will not disprove the reality of the 15·3-year period itself; such departures from strict accuracy have happened before. But it will disprove the explanation of that period offered in my third proposition above, and set out at length in the preceding arithmetical analysis. All the four cycles inferred by that analysis are due to return to a maximum phase between February and September 1923, a remarkably close conjunction. If the harvest of that year is deficient, this will tend to confirm my third proposition; the worse the harvest the stronger the confirmation. In the excessively improbable event of my arithmetical analysis being complete and accurate in every particular, 1923 is destined to repeat something like the experiences of 1315, the year of the worst and most general harvest failure known in European history. But it would be as rash to count on this without further enquiry, as to postpone such inquiry till it must be too late to influence our actions. It is with this in view that I have written.

The foregoing discussion, as I am only too well aware, only touches the fringe of the subject. I would gladly have postponed further publication upon it. But the time which I can devote to it is limited and uncertain. Meanwhile, the possibly critical year 1923 approaches. I give the material as I have it at present, in the hope that it may induce and repay study by others.

W. H. Beveridge

Appendix.

Wheat Prices in Western and Central Europe 1500–1869.

	Actual Index Number for Year.	Index of Fluctuation (t).		Actual Index Number for Year.	Index of Fluctuation (t).		Actual Index Number for Year.	Index of Fluctuation (t)
1500	17	106	1506	14	87	1512	23	135
1501	19	118	1507	14	88	1513	18	104
1502	20	124	1508	14	88	1514	17	96
1503	15	94	1509	11	68	1515	20	110
1504	13	82	1510	16	98	1516	20	107
1505	14	88	1511	19	115	1517	18	97

Note.—The "Actual Index Number for Year" is the mean of the index numbers for the countries and places included, each of these being reduced to basis: Mean of prices for 1700–1745 = 100.

The next column, headed "Index of Fluctuation," shows the actual index number for each year as a percentage of the mean of the actual index numbers for 31 years of which that year is the centre.

	Actual Index Number for Year.	Index of Fluctuation (*t*).		Actual Index Number for Year	Index of Fluctuation (*t*).		Actual Index Number for Year.	Index of Fluctuation (*t*).
1518	14	75	1581	55	87	1644	98	96
1519	16	86	1582	54	83	1645	84	82
1520	21	111	1583	56	85	1646	90	88
1521	24	125	1584	52	76	1647	120	116
1522	15	78	1585	76	110	1648	124	122
1523	16	86	1586	113	161	1649	136	134
1524	20	102	1587	68	97	1650	120	119
1525	14	71	1588	59	84	1651	135	136
1526	16	81	1589	74	106	1652	100	102
1527	25·5	129	1590	78	111	1653	70	72
1528	25·8	130	1591	69	97	1654	60	63
1529	26	129	1592	78	108	1655	72	76
1530	26	125	1593	73	100	1656	70	75
1531	29	139	1594	88	119	1657	71	77
1532	20	97	1595	98	131	1658	94	103
1533	18	90	1596	109	143	1659	95	104
1534	16	76	1597	106	138	1660	110	120
1535	22	102	1598	87	112	1661	154	167
1536	22	100	1599	77	99	1662	116	126
1537	16	73	1600	77	97	1663	99	108
1538	19	86	1601	63	80	1664	82	91
1539	17	74	1602	70	90	1665	76	85
1540	17	74	1603	70	90	1666	64	73
1541	19	76	1604	63	80	1667	63	74
1542	20	80	1605	61	77	1668	68	80
1543	24	96	1606	66	81	1669	64	74
1544	28	112	1607	78	98	1670	67	78
1545	36	144	1608	93	115	1671	71	83
1546	20	80	1609	97	94	1672	72	84
1547	14	54	1610	77	93	1673	89	106
1548	18	69	1611	83	100	1674	114	134
1549	27	100	1612	81	99	1675	102	122
1550	29	103	1613	82	100	1676	85	102
1551	36	129	1614	78	94	1677	88	107
1552	29	100	1615	75	88	1678	97	115
1553	27	90	1616	80	92	1679	94	113
1554	30	100	1617	87	100	1680	88	104
1555	38	123	1618	72	82	1681	79	92
1556	50	156	1619	65	73	1682	74	84
1557	24	71	1620	74	81	1683	79	86
1558	25	71	1621	91	99	1684	95	101
1559	30	81	1622	115	124	1685	70	74
1560	31	84	1623	99	106	1686	72	75
1561	37	97	1624	99	106	1687	63	66
1562	41	105	1625	115	121	1688	60	62
1563	36	90	1626	101	105	1689	74	76
1564	32	78	1627	90	84	1690	75	79
1565	47	112	1628	95	97	1691	91	97
1566	42	100	1629	108	109	1692	126	134
1567	37	86	1630	147	148	1693	161	169
1568	34	77	1631	112	114	1694	109	111
1569	36	80	1632	108	108	1695	108	109
1570	43	93	1633	99	97	1696	110	111
1571	55	112	1634	96	92	1697	130	128
1572	64	131	1635	102	97	1698	166	163
1573	79	158	1636	105	98	1699	143	137
1574	59	113	1637	114	105	1700	103	99
1575	47	89	1638	103	97	1701	89	85
1576	48	87	1639	98	93	1702	76	72
1577	49	87	1640	103	99	1703	93	88
1578	45	79	1641	101	99	1704	82	77
1579	53	90	1642	110	107	1705	71	66
1580	55	90	1643	109	106	1706	69	64

	Actual Index Number for Year.	Index of Fluctuation (t).		Actual Index Number for Year.	Index of Fluctuation (t).		Actual Index Number for Year.	Index of Fluctuation (t).
1707	75	69	1762	124	97	1817	266	126
1708	134	125	1763	113	88	1818	197	94
1709	183	175	1764	122	95	1819	177	86
1710	113	108	1765	130	101	1820	170	84
1711	108	103	1766	137	106	1821	152	76
1712	121	115	1767	148	113	1822	156	77
1713	139	134	1768	142	108	1823	141	71
1714	109	108	1769	143	108	1824	142	71
1715	90	90	1770	176	131	1825	137	69
1716	88	89	1771	184	136	1826	161	82
1717	88	89	1772	164	119	1827	189	93
1718	93	94	1773	146	106	1828	226	114
1719	106	107	1774	147	105	1829	194	103
1720	89	89	1775	124	88	1830	217	110
1721	79	79	1776	119	84	1831	199	105
1722	91	91	1777	135	94	1832	151	82
1723	96	94	1778	125	87	1833	144	80
1724	111	110	1779	116	79	1834	138	78
1725	112	111	1780	132	87	1835	145	82
1726	104	103	1781	133	88	1836	156	88
1727	94	94	1782	144	94	1837	184	102
1728	98	101	1783	145	94	1838	216	117
1729	88	90	1784	146	92	1839	204	107
1730	94	96	1785	138	85	1840	186	95
1731	81	80	1786	139	84	1841	197	101
1732	77	76	1787	154	93	1842	183	92
1733	84	84	1788	181	108	1843	175	88
1734	92	91	1789	185	108	1844	183	92
1735	96	94	1790	151	86	1845	230	115
1736	102	101	1791	139	78	1846	278	139
1737	95	93	1792	157	87	1847	179	90
1738	98	91	1793	155	85	1848	161	80
1739	125	122	1794	191	103	1849	150	74
1740	162	159	1795	248	130	1850	159	78
1741	113	110	1796	185	95	1851	180	86
1742	94	90	1797	168	84	1852	223	105
1743	85	81	1798	176	87	1853	294	138
1744	89	84	1799	243	120	1854	300	141
1745	109	102	1800	289	139	1855	297	138
1746	110	102	1801	251	117	1856	232	107
1747	109	100	1802	232	105	1857	179	82
1748	120	109	1803	207	94	1858	180	81
1749	116	104	1804	276	125	1859	215	97
1750	101	90	1805	250	114	1860	258	116
1751	113	99	1806	216	98	1861	236	107
1752	109	95	1807	205	93	1862	202	92
1753	105	90	1808	206	94	1863	174	79
1754	94	80	1809	208	94	1864	179	81
1755	102	85	1810	226	104	1865	210	94
1756	141	117	1811	302	140	1866	268	119
1757	135	112	1812	261	121	1867	267	118
1758	118	95	1813	207	96	1868	208	93
1759	115	91	1814	209	96	1869	224	102
1760	111	88	1815	280	130			
1761	127	100	1816	381	178			

The table is based on lists of wheat prices in the following places and countries, the lists being used in each case for the crop years stated.

Great Britain.

Oxford	1594–1809
Cambridge	1594–1793
Windsor	1594–1809
Haddington(shire)	1627–1789
Edinburgh(shire)	1640–1809
Portsmouth	1678–1776
Berwick(shire)	1689–1792
Aberdeen(shire)	1690–1809
England (Rogers' Averages)	1485–1593
England (Gazette Average)	1810–1884

North Germany.

Xanten	1550–1815
Lüneburg	1550–1629
Hildesheim	1567–1661
Leipzig	1592–1617 and 1671–1825
Hanover	1589–1748
Brunswick	1600–1749
Halle	1600–1749
Berlin	1623–1815
Einbeck	1634–1750
Erfurt	1650–1774
Nordhausen	1675–1774
Dantzig	1702–1815
Bremen	1709–1815
Emden	1771–1815
Prussia	1815–1869

France.

(Excluding 1790–1795).

Paris	1520–1630 and 1673–1754
Albi	1520–1744
Annonay	1570–1754
Chateaudun	1583–1754
Rozoy-en-Brie	1595–1745
Grenette de Bourg	1613–1649 and 1673–1754
St. Etienne	1641–1754
Aubenas	1670–1754
Lyons	1673–1754
Orleans	1684–1750
Villeneuve-de-Berg	1700–1754
France	1755–1884

South Germany, etc.

(Excluding 1620–1648).

Strasbourg	1485–1874
Wurtemburg	1500–1617
Bale	1501–1682 and 1751–1797
Munich	1636–1854
Landeshut	1639–1699
Prague	1654–1799
Breslau	1700–1809
Vienna	1705–1783
Austria	1784–1856

Low Countries.

Utrecht	1495–1643
Gand, etc.	1485–1793
Ypres, etc.	1485–1548 and 1599–1793
Bergues	1485–1548
Lille	1549–1666
Arnhem	1567–1868
Douai	1688–1785
Belgium	1800–1884

NOTE.—Since the foregoing article was printed I have myself obtained for 5·11 years ($p = 46$, $s = 9$) a very large amplitude ($r^2 = 32{\cdot}53$) in the wheat prices, with maximum phase practically at the origin 1545·5. This amplitude is much more than can be explained as a harmonic of the 15⅓ year period (the second harmonic of this, at 7⅔ years, gives $r^2 = 7{\cdot}21$ only) and to my mind establishes the reality of the B cycle, which has thus been found independently by harmonic analysis in at least three sets of records (wheat prices, temperature, rainfall).

The A cycle seems to show itself in a small peak on the periodogram at 4·375 ($r^2 = 6{\cdot}851$); the amplitude is too low to be convincing, but a large amplitude was not to be expected.

The C and D cycles have not yet been traced. W. H. B.

THE APPLICATION OF THE THEORETICAL APPARATUS OF SUPPLY AND DEMAND TO UNITS OF CURRENCY[1]

I HAVE used what will perhaps appear a somewhat clumsy phrase in place of the more familiar "Laws of Supply and Demand," or even the "theory of the relation of demand and supply to value," because I think it desirable to suggest that "Supply and Demand" are heads of arrangement rather than the name of a doctrine. When we say that the value of a thing depends on supply and demand, we do not, or at any rate ought not, to mean more than that we think it will be convenient to arrange the causes of changes in value under those two heads.

The stock of some things (such as milk, or even wheat) in hand at any one moment is so small in proportion to the annual produce, that we think of the stream of produce as furnishing the supply, and the ability and willingness of people to consume the thing as furnishing the demand. Of other things, such as land and railways, the annual production is so small compared with the stock, that we think of the stock as furnishing the supply, and the ability and willingness of people to use the thing as furnishing the demand.

Currency belongs to the second class. It is one of those durable instrumental goods of which the stock at any moment is very large in proportion to the annual gross additions to and gross subtractions from the stock.

We may consequently think of the supply, as we think of the supply of houses, as being the stock rather than the annual produce; and we may think of this supply, as we think of the supply of houses, as being increased by net additions to the stock, and decreased by net subtractions from it.

Following the same line with demand, we must think of the demand for currency as being furnished, not by the number or amount of *transactions*, but by the ability and willingness of persons to *hold* currency, in the same way as we think of the demand for houses as coming not from the persons who buy and

[1] Read before Section F of the British Association, Edinburgh, 1921.

re-sell or lease and sub-lease houses, but from the persons who *occupy* houses. Mere activity in the house market—mere buying and selling of houses—may in a sense be said to involve "increase of demand" for houses, but in the corresponding sense it may be said to involve an equal "increase of supply"; the two things cancel. The demand which is important for our purposes is the demand for occupation. In the same way, more transactions for money—more purchases and sales of commodities and services—may in a sense be said to involve increase of demand for money, but in the corresponding sense it may be said to involve an equal increase of supply of money; the two things cancel. The demand which is important for our purpose is the demand for currency, not to pay away again immediately, but to *hold*. Just as you are a less important demander of houses if you occupy a £1000 house than if you occupy a £2000 house, so you are a less important demander of currency if you keep on the average £5 in your pocket than if you keep £10.

It may be said that, in addition to the demand of persons and institutions for currency to *hold*, there is also sometimes a demand by banks and governments for currency to *destroy*, as, for example, at present in this country, when the Treasury is buying in Currency Notes and burning them. But as this demand always, or almost always, comes from institutions which have issued quantities of paper and subsequently repented, it is usually regarded as simply reducing the supply instead of increasing the demand. In favour of regarding the institution as a demander, it may of course be said that the fact that it acquires the currency to burn rather than to hold is immaterial, since it makes no difference whether the currency acquired is held or burnt, provided it is not reissued. It is, some one may say, all the same whether Currency Notes which have been withdrawn have been burnt or are stored somewhere in the Bank of England. But this is not quite true, since, if the notes were still held, they would appear in the total stock which we have agreed to call the supply, whereas, having actually been destroyed, they no longer appear in the total. Consequently it is more convenient to follow ordinary usage in this matter, and speak of banks and governments which buy up and burn currency as reducing the supply.

To clear up our ideas about the demand for currency, let us think of a few obvious causes of increase and decrease of demand for it.

The most obvious cause of increase of demand for a currency is an increase in the number of persons who use it. At a very

early age—often at his or her christening—each new member of the human race begins to hold a small quantity of currency, and the child of six sometimes has more than his father or mother. There are plenty of examples of increase of demand from this source having been sufficient to cause a noticeable increase in the value of a currency which is limited in amount—the Indian rupee after the closing of the Indian mint and the American greenback are often quoted, and the general increase of gold and silver-using populations, though it has not actually raised the value of gold and silver currencies, has at any rate obviously prevented them from falling as fast as they would otherwise have done. The great rise of prices after the Black Death may be given as an example of the converse effect of diminution of population in diminishing the demand for, and consequently the value of a currency.

The introduction of anything which economises currency, *i.e.* which makes it unnecessary for people to keep so much currency by them on the average, tends to diminish the demand for currency. To take the simplest possible example, suppose a landlord living on his rents paid quarterly, and that neither he nor his farmers have bank accounts. The farmers will have to accumulate a considerable sum in currency towards quarter-day, and this will then be handed over to the landlord, who will only *decumulate* it gradually as the next quarter wears on. Between them they will always have a large sum of currency, the landlord holding most of it at the beginning of the quarter and the farmers the most of it at the end. But if a bank is started, and they all open accounts at it, the farmers will no longer accumulate currency to pay rents with, but will accumulate balances at the bank, and when quarter day comes will order the bank (by their cheques) to pay the landlord, who will be content to see their balances transferred to him, and will not want the store of cash which he formerly required. The bank, of course, will provide a new demand for currency, since it will require a full enough till, but enough for it will be very much less than the amount formerly required by the farmers and landlord.

That banks economise currency in this way is obvious, but there is no possible means of discovering or estimating *how much* they economise it. We may know that we keep an average of £10 a head in currency now, when we have banks, but we cannot possibly form the wildest guess how much we should keep if there were no banks. Some of us would probably never have been born : the whole situation of the world would be different.

No doubt some other ingenious methods of economising currency would have been devised if some ban had been placed on banking.

A change in the distribution of wealth may cause a change in the demand for currency. If the rich and banking portion of the people becomes richer, it does not keep appreciably more currency in its pockets, but increases its balance at the bank. But if the poorer non-banking portion becomes richer, it does accumulate currency, not only in its pockets, but also in money-boxes and mugs on the chimney-piece and other strange places.

Innumerable are the changes of social circumstances which may lead to greater or less economy of currency, and consequently less or greater demand for currency. The calling up of men for military service, and subsequently the large removal of women from their homes for munition-making and other purposes during the recent war, greatly increased for the time the demand for currency, because the members of families, when separated, found it convenient to keep much more currency by them in the aggregate than when they were living at home and together.

Like the demand for other things, the demand for currency is liable to be varied by the miscalculations of mankind about the future. If we were all level-headed prophets, fluctuations of prices would be smoothed out. There would still be slowly rising and falling tides, but waves would disappear. But in fact we all foresee wrong, and our individual mistakes do not balance each other—we foresee wrong to some extent in unison. One year we agree in over-estimating the potato crop, and the next year in under-estimating it: when we over-estimate it, our willingness to buy early is less than if we foresaw correctly, and for the time demand is kept below what it would be if prices were kept as stable as possible. The same thing happens with currency, though it is not nearly so obvious. If there is a predominating impression that prices in general are going to rise, there will be a predominating tendency to hold commodities for the rise, which will itself raise prices at once. Every one can see this, but few notice that this tendency to hold goods back, resulting in a rise of prices, is the same thing as a diminution in the demand for currency. Currency becomes the depreciating article which people in general are less willing to hold. Vice versa, if it is generally expected that prices will fall, most people are more eager to get rid of goods and are more willing to hold currency.

You must not expect to find evidence of increased or decreased willingness to hold currency in actually increased or decreased

stocks of currency. If the total is a fixed amount it cannot vary in that way. The evidence is to be looked for in the fact that more or less goods are actually being given for the unit of currency. You can have an increased and a decreased demand for houses without finding any alteration in the number or size of houses.

The effect of misguided speculation for the rise or fall of the value of a currency is disguised, so far as internal speculation is concerned, by taking the form, in each individual case, of speculation for the fall or rise of particular commodities. Very few persons grasp the idea of a rise and fall in the value of their own country's money, and the Money Market is a place where you deal in loans, not in money. We have not yet risen to the height of having a Currency Market in which you can buy and sell future Board of Trade, Statist and other Index Numbers. But direct speculation in the currency of other countries is common enough, and is often ill-informed enough to cause great disturbances of values, instead of smoothing them down. Some time ago, the editor of an Athens newspaper was unable to go to a certain restaurant there because the waiters worried him with questions about the future of Austrian crowns which they were holding. When the British troops first went to Cologne, they bought German marks because they saw that the mark was "lower than usual." It is known that many milliards of the depreciated currencies are held by foreigners. Such holding is, of course, a pure addition to the usual demand for currency, and tends to maintain its value for a time. Eventually, however, the foreign holders decide to sell, and their decision is much more likely to come at a time when it will make a fall more precipitous than when it will moderate a rise. This ignorant speculation of foreigners has been the cause of many violent fluctuations of currency values and is a great support of the doctrine that they "depend on confidence." About that we need not say more than that the price of sugar also is affected at any moment by people's views of what it will be in the future, but we do not say that "the price of sugar depends on confidence."

The supply being taken as fixed, *how much* will a given increase of demand send up the value of currency? One difficulty in answering the question arises from the fact that we have no easy means of measuring increase of demand, and consequently scarcely know how to exemplify a "given increase of demand." But one example seems workable. Suppose that to a country with a particular currency of its own there is added a new province

one-tenth as large and with exactly similar characteristics, which has just, by some accident, lost all its own currency, and that the annexing country creates no additional currency, but allows the new province to supply itself as best it can. We may look on this as providing, after some initial disturbance, 10 per cent. of additional demand. The people in the new province, wanting a medium of exchange, would have to give people in the rest of the country commodities and services to induce them to part with some of their holdings of currency; these sales would send down the prices of commodities and services, and correspondingly elevate the value of currency. How much in the end, when things had settled down, would depend on what we have learnt from Marshall to call " the elasticity of the demand " for currency. This has often been supposed to be what he calls " unity," which would mean that an increase of demand would cause an exactly proportional rise in the value of currency and a reciprocal fall of prices. So that, for example, in the case given above, when the new province was provided with its one-eleventh of the whole currency, prices would be down one-eleventh and the value of the unit of currency up one-tenth. We can see why if we reflect that when prices fall from eleven to ten, and £10 consequently buys as much as £11 did before, we will find it convenient to carry only £10 about with us instead of the £11 we did before. So, to induce the old country to part with one-eleventh of its stock, a reduction of prices by one-eleventh will be required and be sufficient. But we shall do well not to accept this doctrine that the elasticity of the demand for currency is always unity, till we have considered it in relation to supply. We shall then see reason to doubt it.

Now let us turn to the Supply side of the question, asking ourselves about the effect of alterations in supply of currency.

Given a certain demand, increase of supply, in case of any article, reduces value, and currency is no exception. The additional supply of currency is usually given by the producer, or issuer, in exchange for commodities and services, and his coming in as a new and additional buyer of such commodities and services raises the price of those things and diminishes the value of what he is offering—that is, currency. Sometimes, indeed, he gives the new currency away in doles and pensions without getting any return (except ingratitude), but this is not essentially different, since then the recipients of his gifts are the new and additional buyers.

Great confusion is often introduced at this point by neglect

of the distinction pointed out by Sidgwick between increase of demand and what he calls "extension of demand." We often say that the demand for a thing has increased when we only mean that people are taking more of it because they can get it cheaper. It is obvious, however, that it is not this kind of increase of demand that we have in mind when we discuss the effect of increase of demand upon values. We could not say in the same breath that increase of demand for houses raises the value of houses, and that a fall in the value of houses causes an increase of demand for them. We can say in the same breath, that increase of demand raises the value of houses, and that the fall of value *extends* the demand for them (or, vice versa, a rise of value *contracts* the demand). No more in the case of currency than in any other case does the increase of supply defeat itself by causing *increase* of demand. It only *extends* demand, inducing people to hold more currency because the fall of value makes it possible to hold larger amounts with equal sacrifice and necessary to hold larger amounts to secure equal convenience. People will take the additional currency as they take additional whisky when it is watered and offered to them at a lower rate, but that does not show that, in the absence of increase of demand in the narrower sense, they will take additional whisky or additional currency at the old rate.

The next question is *how much* a given addition to the supply of currency will raise prices and lower the value of the unit of currency? This is really the same question that we have already asked in regard to the effect of a given increase of demand. The answer is the same—it depends on the elasticity of demand, and there is the same *primâ facie* reason for believing that the elasticity at bottom is unity, so that, always in the absence of any increase or decrease of demand in the narrow sense, an increase in the supply should cause an exactly reciprocal diminution in the value of the currency. But great doubt is thrown on the doctrine when we reflect that if it were universally true, issuers of legal tender could go on buying goods and services with new issues indefinitely. The process of doubling the currency in, say, the first month, would indeed gradually bring the purchasing power of the unit down to one-half, but as the issuer at the beginning would be buying very near old prices, and only at the end at the new prices, he would have acquired goods and services worth over three-quarters of the value of the total of the old currency. By another issue equal to the old currency he would only get half as much, but there is nothing

to prevent him issuing twice as much in the second month, four times as much in the third, eight times in the fourth, and so on, and then he will be able to go on acquiring the same amount of commodities per month indefinitely. Experience seems to show that the unit of a currency falls to zero in value long before the supply of the currency reaches infinity, and believers in the doctrine have been unable to explain why. They have contented themselves with eluding the point by means of propositions, such as "however many kronen the Austrian Government issues, so long as they really circulate, they will always have some value, however small."[1] No doubt; but is it not equally true that so long as they have some value they will continue to circulate? They will stop circulating when they lose all value. The explanation seems to lie in the fact that human intelligence anticipates what is coming. When it is seen that the value of currency is steadily falling, people see that it is more profitable to hold goods than currency, the demand for currency fails to extend in proportion to the enlargement of the supply, and its value consequently falls more rapidly. The issuer very likely redoubles his efforts to keep up with the fall by issuing new currency at a still more rapidly increasing rate, but all to no purpose—he is bound to lose the race, and the reason is that the elasticity of demand is less than unity.

In the converse case, that of reduction in the supply of currency, there is also reason to expect an elasticity less than unity. As general prices fall owing to the reduction, people will endeavour to protect themselves by displaying greater readiness to part with goods and services, and less to part with currency, and anticipation will thus cause the fall of general prices to outrun the diminution of currency. Pushed to the extreme limit, the policy would put a stop to the circulation of the currency, as it would all be hoarded, and exchanges of goods would be made by barter. But things are never pushed so far, because, long before, substitutes for the existing currency are always introduced and check the rise of purchasing power. For example, as soon as a reduction of our present paper currency went so far as to make £1 of it worth more than 113 grains of fine gold, substitutes for it would begin to come into use in the shape of sovereigns and half-sovereigns.

Lovers of paradox might say that a currency may go out of

[1] I quote from Miss Van Dorp's review of Dr. G. M. V. Stuart's *Inleiding tot de Leer van de Waardevastheid van het Geld*, in ECON. JOURN., June, 1921, but I am not sure whether the opinion is that of the author or the reviewer, or both.

use either because it is too cheap, or because it is too dear, but that is not the true conclusion of my argument. The true conclusion is that a continuance of rapid change in either direction will cause a currency to go out of use. This is perfectly reasonable, stability of value being one of the most important requisites of useful currency, and Gresham's law that bad money drives out good being fortunately quite untrue of the long run.

EDWIN CANNAN

THE PRESENT POSITION OF INDUSTRIAL WOMEN WORKERS

I. The economic position of industrial women at the present time is one of danger and difficulty. The cessation of war-time activities, combined with the dislocation of foreign exchanges and the impoverished condition of a large part of the Continent of Europe, caused a drop in the demand for labour which is especially felt by industrial women workers. Women are being thrown out of work in large numbers, and the situation is in some quarters made use of to force down their wages to pre-war levels. Reductions of wages are threatened: directly through cuts made by the employer in unregulated trades, and by attempts to evade the payment of rates already fixed in Trade Board industries; indirectly by attacks on the institution of Trade Boards.

Cases have been taken into court this year in respect of wages paid to girl workers at rates as low as seven-eighths of a penny per hour (*Times*, Aug. 25, 1921). Other instances have been given in the Press of wages in large provincial towns as low as 4*s*. to 10*s*. a week for full-time work in cafés and restaurants, and a curious contrast was observed in one of these towns, where the waitress in a co-operative café was receiving 35*s*. for a week of forty-four hours. Instances of very low wages, from 9*s*. a week and upwards, are given in the 46th Report of the Women's Trade Union League.

The anomaly of a wide disparity in wages for the same work, which was often noticed as characteristic of the "sweated" industries investigated before the passing of the Trades Boards Act, is again reported. Thus in regard to the sack and bag industry, last June, the Ministry of Labour received information that the London federated firms were paying 37*s*. to £2 a week, while the non-federated firms were paying 11*s*. to 16*s*. Such instances are frequently met with in industries where wages are unregulated. Whereas the price of commodities tends to uniformity in a given market, the price of labour, to use a con-

venient if unpleasing phrase, often varies to an extraordinary degree, and the conscientious employers who, whether from motives of humanity, efficiency, or the simple desire to avoid trouble, pay fair wages, are constantly liable to be undercut by less scrupulous employers.

Miss Constance Smith, in a book on wages boards, written just before the Trades Boards Act was passed, prophesied that the first effect of such boards would be one of steadying and regularising rather than of greatly raising wages; a limit would be set to undercutting. This forecast proved correct. A great part of the value of the work done by the earlier Trade Boards consisted in the check placed on the anarchic fluctuations in the rate of pay. The wages fixed were far from being extravagant—indeed in many cases they were not sufficient for healthy maintenance. So low was the standard of those days that in some trades a minimum of $3\frac{1}{2}d.$ an hour constituted a distinct advance, even for adult workers. The great point of Trade Boards regulation was that its action was preventive. Some degree of security was attained in the industries concerned, and a stop was put to the downward tendency that seems inevitable in unorganised trades. Extreme under-payment became illegal and a minimum standard for unskilled workers was created.

During the War, as we all know, an unparalleled demand for women's labour occurred, and women's wages rose to heights previously undreamed of, though, owing to the rise in the cost of living, the rise in wages was less than it appeared. Mrs. Barton, in a valuable paper (published in the *Journal of the Royal Statistical Society*, July 1921), made an estimate of the advance in real wages. Allowing for higher prices, at the end of 1920, "practically all the legal rates" (*i. e.* for unskilled workers) lay between 34*s.* and 37*s.*[1] This was equivalent to a weekly wage of 12*s.* 6*d.* or 13*s.* 6*d.*, as compared with the 10*s.* a week which was a common wage in unorganised trades in the years preceding the War, *i. e.* an advance of about 30 per cent.

Omitting war-time fixations, we find in the statistics given by Mrs. Barton that the Trade Board rates fixed in various clothing trades from November 1918 to March 1921 varied between 25*s.* and 44*s.*, except for some classes of fur workers and a particular class of retail bespoke tailoresses, who were assigned specially high rates. The figure most largely represented was 34*s.*, the rate for seven different groups. These are minimum time rates for workers over eighteen, and so are the

[1] The laundry rates alone fell below this level.

figures that follow. Piece-workers and specially expert workers may, of course, receive higher rates.

The figures given by Mrs. Barton for the Trade Board rates in the distributive trades (a few of which were then only "proposed," not fixed rates) vary from 20*s*. 6*d*. to 42*s*. 6*d*. for women workers of eighteen and over, wages of 28*s*. and under 30*s*. being the most numerous groups.[1] In the laundry trade the latest weekly wage (time rate for workers of eighteen and over) was 30*s*. in November 1920, with considerable variations, *i. e.* less for "new entrants," and higher hourly and piece rates for emergency and casual workers. The Trade Board rate in metal trades was 36*s*. for experienced workers of eighteen and over.

These figures give a general idea of the situation in regulated trades prior to the present wave of unemployment. Further details and statistics would run beyond the limits of our space, and are unnecessary, as Mrs. Barton's paper can be easily referred to by those who desire more particulars.

II. Quite recently a large number of proposals have been laid before the Boards to reduce the rates in force by amounts usually somewhere about 10 or 12 per cent. : *i. e.* from 9½*d*. to 8½*d*. an hour, from 9*d*. to 8*d*., from 8¼*d*. to 7½*d*., and so on, the idea being that wages should now suffer some reduction in accordance with the fall in the cost of living. In one instance the proposal was to reduce the rates by 20 per cent., but in this case the workers' representatives left the meeting to mark their displeasure, and the proposal was subsequently reduced to 12½ per cent. This incident is highly significant. It indicates that the Trade Board has the important function of interposing an interval for consideration, "putting on the brake," where violent reductions of wages are attempted by employers in a hurry. In spite of all the troubles and difficulties of the present time, we are in this respect already a more civilised society than in the early years of the century. Wages, in regulated trades, can no longer be treated in the arbitrary fashion of those days; before a drastic reduction can be made the question must be referred to a legal authority, on which both sides are fully represented, and thus gets a chance of being decided on its merits.

In 1919 this was thoroughly realised, and the Ministry of Labour undertook that Trade Boards should be set up with all possible speed in order to deal with wages in low-paid trades during the period of reconstruction. Certain of the boards

[1] "Numerous" refers to the decisions of trade boards, not to the workers affected, as to whose numbers the paper gives no information.

promised were set up, but in many other cases the pledge has not been redeemed, and the Minister of Labour has delayed or prevented the setting up of Trade Boards. In the House, in answer to a question, he assured a Member that he was exercising "the greatest caution" in the setting up of Trade Boards "in the present difficult circumstances." It is to be hoped that the Minister realises that there are very "difficult circumstances" also in the present situation of industrial workers, and "caution" is there also needed. Meantime the official staff of investigators has been considerably reduced, and in September 1921 the Minister of Labour appointed a committee to inquire into the working of Trade Boards.

No doubt rising costs of production at home, and the difficulties which the results of war and the nature of the Peace settlement have placed in the way of foreign trade, are giving some manufacturers a great deal of trouble, and the reduction of wages of the weaker classes of workers may be regarded as the simplest expedient for easing the transition. But it is also a disastrous and extravagant one, as it tends to lower the efficiency not only of the women workers themselves, but of the next generation. The difficulties of the present time, which are being used as an argument against the system of Trade Boards regulation, in reality form a powerful argument for not leaving wages to be settled by caprice of the moment. The more complex the relevant considerations, the more necessary it is to have a representative authority to whom they can be referred and by whom the adjustment of wages can be effected after hearing both sides. In the absence of such an authority the weak position of workers can be taken advantage of to lower the standard irretrievably.

It is not, of course, intended here to imply that Trade Boards or the administration thereof should be exempt from criticism. No doubt mistakes have been and are being made: it seems likely that some determinations are too elaborate, go into too much detail, and thus add to the practical difficulty of enforcing the decisions. It is also arguable, I think, that the Trade Board can be most useful if it restricts its sphere to fixing flat rates to prevent sweating, and leaves it to the Trade Union action to determine the differential rates for organised workers of superior skill and experience. But these are matters of detail. The institution itself is one of tried and proved value. Numbers of weak and unorganised workers have been rescued from the extreme of poverty; industries regulated by Trade Boards have fewer strikes and labour troubles than have others; and, as Mr. Henry

Clay pointed out in *The Times* (September 26, 1921), at the present time, when unemployment is rife, these industries have a percentage of unemployment which is well below the average.

It is an interesting set-off to the attacks that have been made, that those Trade Boards which have the longest experience have recently passed unanimous resolutions (including, of course, the employers' representatives) recording their conviction that the operations of Trade Boards have been of advantage and benefit to all concerned, whether employer or employed, and adding an expression of appreciation of the appointed members' services. Regret in at least one case was expressed that an attempt should have been organised to cast discredit on the system.

III. It is at least possible that reduction in women's wages can be avoided or minimised by economies in other directions. I may perhaps mention here that I do not propose to discuss such matters as the reopening of trade, the reconstruction of European finance and so on. I am warmly in sympathy with the efforts that are being made in these directions, and can believe that they will, or may be, more successful than anything I have to suggest. But they involve large questions of world politics which cannot properly be discussed in the present article, and my aim is to bring out certain points nearer at hand and of immediate practical interest, which seem to me important for readers of this JOURNAL to consider.

The first point relates to the need for improved efficiency in management. The Commission that reported on the coal industry two years ago was, as we all remember, so impressed by the inefficient conduct of the industry that it recommended the most drastic changes in and renovation of the whole system. Dr. Vernon also, reporting to the Industrial Fatigue Research Board on Fatigue and Efficiency in the Iron and Steel Industry, several times refers to the defects in management which keep production lower than need be. Sometimes men are kept waiting for lack of material, sometimes for lack of steam pressure. The loss through such delays and enforced waiting was considerably greater in some works than in others, showing that much of it must be preventable (p. 62). In one case a striking increase of output was obtained, together with a reduction of week-end hours, largely, it is supposed, through a careful study of the causes of delay and taking means to avoid stoppages. Dr. Vernon in this connection attributes great importance to the system of charting delays and output regularly every week,

and thinks it tends to stimulate alertness. But he has to add that charts are very seldom made systematically, and he saw them only in two of the works he visited (pp. 64, 65). In each branch there are "tremendous variations" in the efficiency of the plant employed in different works and in the efficiency with which human labour is utilised. "It takes four to eight times more men to charge blast furnaces by hand than by machine; . . . Coupled with the difference of mechanical efficiency we find that the fatigue of the worker often varies in inverse relation." Dr. Vernon estimated that if all the iron and steel works in the country adopted the most efficient methods, they could on an average improve their output by something between 50 and 100 per cent. In other words, they could enable their employees to earn more in eight-hour shifts than they had previously done in twelve-hour shifts" (p. 95).

Strictly speaking, perhaps the above instances are not altogether relevant, as coal-mining employs no women and iron and steel very few. But a corresponding state of things is noticed in industries in which women are employed. Mr. Elton's Report [1] on Silk-weaving notes that many of our silk-mills are out of date, both as regards structure and lay-out. Much weaving is done in rooms with low ceilings and bad natural lighting. Production, it is shown in the same report, falls off during periods of artificial lighting, and the lighting question is important in a degree which unfortunately is still not recognised by employers. "Every hour," Mr. Elton states (p. 14), "of artificial light which could be avoided by means of increased window area or otherwise, means to the employer loss of production, [and] it means to the worker a reduced wage for performing a more difficult task." Again, the lay-out of old works causes loss of time through inconvenient arrangements, long distances between rooms in which allied processes are carried on, and time is lost through neglect to make such arrangements as will keep machinery continuously running and prevent the unemployment or partial employment of the worker while waiting for material, by neglect to detect and remedy faults in the machinery, or by giving unskilled work to weavers and so compelling them to leave their proper work (p. 15). Mr. Elton here points out that whereas time lost by workers is easily measured, measurement of the time lost by employers is hardly practicable. Consequently the ordinary newspaper-reading public, not familiar with industry, is likely to assign all the blame to the former, and to be quite unaware

[1] Industrial Research Board, *Textile Series*, No. 3, 1920.

of the wide variations in output due to differences in efficiency of management.

Dr. Myers also has referred to defects in management in a recent work (*Mind and Work*, p. 111). Restriction of output by the employer, he says, may be either deliberate or unconscious. Unconscious restriction may occur through bad organisation and out-of-date equipment; deficient training of employees, ill-considered arrangements of working hours, inadequate rest pauses, defective selection of workers, etc. Again, the Report on Profiteering in the furniture trade shows that the amount of timber wasted varies greatly from firm to firm. In one firm it was as much as 50 per cent., but after a careful study of the costs and comparison with other trades it appeared that not more than 15 to 30 per cent. was really necessary and inevitable. In the Report on the Biscuit Trade it transpired that the costs varied greatly from firm to firm, while the selling price was uniform. It would appear that the trade in these circumstances could bear some increase of wages. Taken together, the observations of these independent authorities certainly suggest that there is room for reducing cost of production without trenching on wages.

The personal efficiency of workers can also be improved through bettering the environment. Given time for the change to take effect, the productivity of industry can undoubtedly be increased in this way. A great deal has been written on this subject, but its importance is still imperfectly appreciated. Thus, in a Report on the Causes and Conditions of Lost Time,[1] Professor Loveday emphasised the opinion that sickness as a factor of lost time is under-estimated, and slackness over-estimated. If ill-health of workers spells economic loss to employers, healthy conditions and sufficient rest must be financially important. In an aeroplane factory in London the manager did not believe in long hours, and refused to allow them even in the pressure of war-time. The output was maintained with remarkable steadiness, and not one breakdown occurred among the women workers.[2] Mr. Kahn's book (*Design and Construction of Industrial Buildings*) may be referred to for a particularly vigorous and forceful statement, from the business point of view, of the case for improving industrial conditions. It will be remembered also how markedly the industrial efficiency of women improved under the influence of the better pay and conditions given during the War, especially in munition work and engineering.

[1] Cmd. 8511, p. 51, 1917. [2] *Industrial Fatigue*, by Lord Henry Bentinck, p. 23.

IV. In the short run, however, as we have already noted, the difficulties of the present time are great in the case of many firms, who have to pay higher wages and to meet greatly increased costs in respect not only of materials, but of repairs, re-building, and equipment. The great means of economy is through combination, which avoids much waste through competition and multiplication of staffs. The danger of combination is monopoly, the anti-social aspect of which can be studied in the Report on Trusts and in a more recent report on a certain industry (numbered as Cmd. 1200). Whether even monopoly is quite so dangerous to the position of the worker *quâ* worker, as the other extreme of unregulated competition, may be doubted. The point of present interest is, however, whether it is possible to take advantage of the undoubted economies secured by combination, and therewith to develop some form of co-operation for public service. Such an experiment has been made in the Building Guilds, but these, though extremely interesting and important, affect an industry which employs no women, and are not here relevant. An effort, however, has been made in an industry employing a large amount of female labour, described in the Report on Pottery, prepared by a sub-committee under the Profiteering Acts.[1] The Pottery Trade, it appears, prior to the War was suffering acutely from competition, cutting of prices, and the effects of the American tariff, which hit the export trade very hard. In 1913 the American Government reduced the tariff from 60 to 40 per cent., and the American manufacturers complained. The American Government then appointed a commission to investigate cost of production, first in the States, then in Europe. The result showed that the cost of labour was greater in the States than in England, but the cost of materials was less, and the net earnings of the trade were 10·6 in the States, as against 5·9 in England, per cent. of net value of product. The English manufacturers, beset by competition at home and abroad, fighting for their existence, had concentrated their attention on lowering costs, with the result that wages were brought very low. This state of things compelled both employer and employed to consider organisation, and the War, as the Report puts it, brought them together and assisted in this direction. The employers in the various stages of production have formed organisations controlling 60 per cent. of the trade. The sub-committee reported that profits and prices were reasonable, but considered that steps ought to be taken to safeguard the public in the future.

[1] Cmd. 1360. 1921, *2d.*

A novel feature is that a National Council has been set up, including both employers and employed,[1] which differs from other Councils in that the employers have undertaken to disclose average profits on turnover and the average wages, "the underlying principle being that both employers and employed shall know the real facts relating to the industry." It is further laid down in the report of this organisation (which is summarised as an appendix to the Report on Pottery) that "power is needed to compel all firms to observe common rules and standard conditions laid down by the representatives of the industry." "This claim is made, not with the idea of abolishing competition and obtaining monopoly, but of restricting competition and diverting it from price to quality, and from socially undesirable practices, such as beating down wages, to socially desirable methods, such as the improving equipment and organisation."

On this plan membership of their respective organisations would be compulsory both on employers and employed. It is further suggested that earnings could be increased by bringing up the organisation of all factories to the level of the best, whilst the operatives, if their confidence were enlisted, could often contribute suggestions of value, and could be relied on to secure the increased output which better organisation would make possible. It is also suggested that the Government should revise its policy in the matter of contracts, and instead of opposing every sort of agreement among manufacturers as to prices, should require evidence that the price fixed is justified by costs. The State might also co-operate with the National Council of an organised industry for the promotion of research into economic conditions, the health and mortality statistics of the industry, experiments in processes and materials, and the improvements of industrial hygiene.

V. Briefly to summarise the foregoing paper: It is desirable to avoid a reversion to the under-payment and "sweated" wages of former years, and so far the Trade Board is the best means known to history for securing reasonable rates of pay to the worker in unorganised or ill-organised trades, and for protecting the good employer from the unfair competition of the worse. It appears from evidence given that the productivity of the industry is often retarded through waste and inefficiency in management, and it seems certain that it could be increased by better methods, therewith increasing the amount available for wages. Where it may appear that economies by individuals

[1] This was previous to the Whitley Report.

are not practicable to an extent sufficient to meet the difficulties of increased costs, and at the same time to maintain wages at a reasonable level, this would point to the need for experiments in some form of industrial organisation such as the scheme described in the Report on Pottery (or on any better lines that can be devised), with due safeguards to protect the interests of the consuming public. Among such safeguards the publicity advocated in the scheme itself would be an important item.

B. L. HUTCHINS

THE LAND SETTLEMENT OF RUSSIA

In 1861 the Tsar Alexander II abolished serfdom. The peasants, now independent, obtained the greater part of the landowners' estates, and were admitted into the Zemstvos, the local self-governing bodies designed to deal chiefly with economic affairs.

It is important to remember, however, that the land was given to the peasants not as their private, but as their communal property, and that it was distributed amongst individuals by the commune according to the then size of their families. But as both the total population of any commune and the size of particular families within it varied with time, it therefore became necessary, if equal distribution was to be maintained, to redivide the land at intervals. These redivisions usually took place once every twelve years.

Now whatever may be the theoretical value of the idea of equality on which the commune was based, its realisation had a very bad effect on farming in Russia. Missing the assurance of permanent possession of his land the peasant missed also the incentive to put the maximum of work into it. He just scratched the surface of it, and would never consider any cultures requiring many years to mature, lest the fruits of his labour should fall to some one else. It is true he possessed as private property the land where his home stood, but this was too small to do much with, usually consisting of less than an acre. Further, the principle of equality demanded that each peasant should have his fair share of good and bad soil and of land near to and distant from the village. It thus followed that each peasant's fields were scattered about broadcast. Their number varied generally between eight and fifteen, sometimes it rose to twenty, forty, or even more. These fields were appropriately called "strips," and some of them were so narrow that a plough could not be turned round in one without encroaching upon another, belonging to a neighbour.

The commune nearly always had some indivisible lands, such

as "natural pastures" (stretches subject to inundation and unfit for cultivation), forest, marsh, and so on: their productivity was extremely low. Apart from these, the peasant farm in European Russia averaged 19 acres; in the north it averaged 25, in Central Russia 15, and in the south and south-east 30. In the most important agricultural districts, those south of the parallel of Moscow, the communes were fairly large, containing generally over 100 households each.

Before going further the reader must lay on one side his ideas of farming to-day in Western Europe, and imagine conditions entirely different but somewhat similar to those that prevailed in England or France three hundred years ago. Only in this way will he be able to make for himself a rough picture of rural Russia in the twentieth century. All buildings were of wood; immense spaces of land lay untouched by man's hand; only the most primitive implements were in use—up to the advent of the Revolution one-third of the peasants did not know of the plough even, and made use instead of the *soha*, a crooked wooden stick, with a sharp iron end; ninety per cent. of the population were illiterate; cattle and horses were about midway in size between mastiffs and shorthorns; winters were long and bitter, and during several months absolutely all work was stopped by deep snow or by the subsequent spring thaws which turned every village into an island. But above all let the reader imagine the distances.

Indeed, the first great disadvantage of communal farming in Russia was—*distance*. Take an ordinary case. Suppose that a village consisted of one hundred households, that each household held twenty-five acres in twelve strips scattered symmetrically over the whole communal estate, and that the indivisible land amounted to as much again; this would make altogether 5000 acres. Suppose also for simplicity and to take the most ideal situation that the whole estate was a square and that the farmhouse of a particular peasant lay exactly in the middle of it. A little rough arithmetic gives the sum of the distances between the farmhouse and the strips belonging to it. Thus:—

4 strips distant	·4 miles each	= 1·6 miles.
4 strips distant	·8 miles each	= 3·2 miles.
4 strips distant	1·2 miles each	= 4·8 miles.
	Total . . .	9·6 miles.

In other words, simply to put his foot on each of his strips the peasant had to cover, there and back, over nineteen miles, a

day's journey. The amount of work thus wasted was colossal. Practically it resulted in this: only the nearest strips were cultivated more or less properly (according to the peasants' standard of cultivation); the farther the strip, the less work was put into it, and the farthest away of all were often left untouched—there was no time for them.

The second disadvantage of the communal system was *forced uniformity of farming*. Nearly everywhere the peasants followed the primitive triple rotation of crops—winter corn, summer corn, fallow. If this was followed by the commune it was practically impossible for an individual peasant to deviate from it. If he did so, his work would not coincide with that of his neighbours; he therefore would not be able to avail himself of their help; and one can easily understand that mutual help in the conditions of communal farming had quite a special value. Further, owing to the unclean state of the fields stubble was mostly used for pasture; if therefore a peasant attempted to grow something in a strip lying in the middle of other people's stubble fields, either his crop would be trampled down by the cattle, or else he would have to surround each of his strips with a ring fence—a thing quite impossible, of course.

The communal system was aptly described by a Russian statesman, in military metaphor, as "dressing by the worst." The peasant produced only a small part of what could have been extracted from the soil; his welfare depended not on his own energy, but on physical conditions, or, as he put it, on "God's will." He was content if what he sowed (by hand) returned him, say, fifteen to eighteen bushels per acre; he thanked God when in the fertile south or south-east the soil yielded forty-five or even sixty bushels; and he spoke of sins and punishment when the next year the crop fell to twelve bushels. It was just this feeling of personal helplessness and not alcohol or the much exaggerated malignity of the Government that was the greatest curse of the Russian peasant farming and the main cause of its backwardness. To the peasants shut up in their village, thirty miles from the railway and as much from the town, the commune was for all practical purposes the universe; they called it "Mir," meaning world, and to thwart the will of the world is not an easy thing.

Progress was not possible unless by first clearing the commune out of the way. This was a truth simple enough. But it was not understood either by the Government or by the Zemstvos until quite recent years. It is true, that after 1890 the Zemstvos began to attempt the improvement of the peasant farming,

supplying the peasants with better seeds and better implements, furnishing them with credit—on a very small scale—and sending to them technical instructors. But the success of these measures was only superficial : they merely tinkered at the evil. The peasant perhaps planted some fruit trees, or sowed some clover on his private plot of land, or grew oats from seeds imported from Sweden. But at the same time he still maintained the old triple rotation of crops; his plough, though now of a better make, was still useless to him for his distant strips; the influence of the thoroughbred bulls which the Zemstvos bought in England was annulled by the haphazard cross breeding that took place in the communal herd.

Strange to say, it was the retrograde Russian Government which took the correct view of the situation. The first Russian Revolution of 1905-6 made the Government hasten into the agrarian reform. It was considered then that by developing the sense of private property the formless and unstable mass of the peasantry would be stiffened into a strong conservative class which would prevent the repetition of revolutionary troubles. The agrarian law was drafted in 1906 by the Prime Minister Stolypin, one of the few capable statesmen of Russia. This law admitted two standard forms of land settlement. The first was the exit of single farmers from the commune; the second was partition, or the passing of the whole commune from communal to individual ownership; for such partition a two-third's majority of the peasants in the commune was sufficient. The new farm might be a *houtor* or an *otroub*. In the *houtor* all the land is in one piece; in the *otroub* all the arable land is in one piece but separated from the farmhouse. This latter type was obviously imperfect, but it was inevitable. The peasants lived in villages close together; the villages were usually large; out of one hundred peasants, say ten only would obtain land immediately adjoining the ground where their homes stood, the other ninety would have to put up with lands more distant. Now, to transfer nine-tenths of rural Russia to new places was a problem which of course could not be solved all at once. It was reckoned that the *otroubs* would later on become converted into *houtors*, through the peasants leaving their old houses and building new ones on their main lands. In practice there were about seven times as many *otroubs* as there were *houtors*.

Roughly speaking, twenty million farms had to be settled—a colossal task considering the area involved, the legal complications to be circumvented, and, most of all, the inertia of the

peasantry. The task was not made easier by the Zemstvos. Their attitude to the reform was chilly, partly for academic reasons, and partly for political. They regretted the sacrifice of the principle of communal ownership which they considered to be better suited to the Russian peasant than private ownership, and they suspected a reform hallmarked by the Government. On the other hand, the Government—or rather the talented Minister of Agriculture, Krivoshein, who succeeded in pursuing unhindered his own line of policy—did everything possible to enlist public opinion. In the days of unbridled bureaucracy Krivoshein took great pains to fill up the Land Settlement Commissions with unofficial elements, with men who knew the local conditions and who were in touch both with the Zemstvos and with peasants—a task, by the way, extremely difficult in the atmosphere of growing enmity between the Government and the general public. (Quite recently the same Krivoshein as Prime Minister of General Wrangel distributed the landowners' estates between the peasants of the Crimea.)

The work of settlement began about 1907. The first two or three years were the period of setting examples and of propaganda; the work progressed slowly. The chief hindrance was to be found in the peasantry themselves. "Our forefathers lived in the commune—why should we leave it?"—that was the stereotyped reply that the settlement workers had to hear from every mouth. On one occasion an official was declared to be "the son of Antichrist," and was promised appropriate treatment. To persuade the peasants that *old* is not necessarily *good*, a sum of efforts was required which only those can appreciate who know the force of passive resistance peculiar to the illiterate Russian. However, the work went on. Gradually it increased in volume; some Zemstvos announced their sympathies with it; the resistance of the peasants grew weaker. In the first year only a few thousand settlements were made; five years later their number rose to 200,000 a year; in 1914 it had reached 400,000 a year. By 1916, owing to the War, and the consequent depletion of staffs, the pace of the reform had to be slackened; at that time the number of *houtors* and *otroubs* was about 2,200,000. It was believed that by 1925–30 the commune would be extinct.

Soon after the first settlements it became clear that the formation of *houtors* and *otroubs* was not the end of the reform but only Act One. The peasants, freed from the commune, secured only the material conditions of progress, but had no

means whereby to enact it. All they knew was the routine of farming as practised in the commune; even if they were taught what to do they would not be able to do it, as their capital amounted practically to zero. The outstanding task was to organise technical assistance for the new settlers. This should have been done by the Zemstvos, but once again politics intervened, and the Zemstvos stood aloof from the new settlers—"creatures of the bureaucracy." Again, it was the Ministry of Krivoshein that took the initiative, trying later on to induce the Zemstvos to share the work.

Help in the form of agricultural instruction began in 1910. The first step was to form a staff of instructors—*agronomers*, as they were called. By 1914 the Government had about 1500 of them.

Their duties consisted of: (1) Lecturing; (2) Organisation of show farms and show fields, where improved methods of farming were demonstrated, not in the artificial conditions of an experimental field, but in the natural conditions of a genuine peasant farm, the farmer in such circumstances being usually given a loan ranging from £1 to £12, not more; (3) Organisation of depots of improved implements; the implements were temporarily lent to the peasants for a nominal fee; (4) Organisation of breeding stations. All credit operations were left with the Zemstvos.

About 1913 a special staff was formed to introduce new methods of housing. The peasants' buildings were all wooden with roofs of thatch; a fire once started often consumed the whole village. It was necessary to replace wood with cement or bricks. This work, however, had no time to develop.

With time those Zemstvos which were more progressive and less affected by politics joined the Government in this work, and indeed in some districts the two organisations were blended into one. By 1915 about three-fifths of the staffs formed by the Government had been taken over by Zemstvos. The liberal tendency of Krivoshein was much appreciated by the Douma; as a matter of fact he and his successor, the equally capable Rittich, were the only two ministers who enjoyed the confidence of the Douma at the time of the most furious attacks on the bureaucracy.

The Western reader should not overrate the results of this work. There were, indeed, several thousands of instructors; but their pupils numbered twenty millions, and consisted of men ignorant, and stubborn in their ignorance. The instructor had

to spend hours and hours talking—and cursing too—before he could induce some Ivan or Semyon to sow just ten square yards of clover or swedes; he had to call on the same Ivan or Semyon perhaps ten times before he would agree to change the rotation of crops. The instructor's district might be of the size of several English counties; he had to get about it as best as he could —without roads. The Government and the Zemstvos spent about 100 million roubles a year on settlement and technical help; this seemed a fairly large sum of money, but divided among 20 million peasants it was a drop in the ocean. Still, it could not be otherwise. The country was poor, the educated classes formed not more than 2 per cent. of the population; practically all men with any scientific knowledge of agriculture were enlisted in the service of Zemstvos or the Government. What was done, inadequate as it was, was near the maximum possible under given conditions.

The Western Press is now showing a tendency to overrate the influence of the co-operatives in Russia. The growth of the co-operatives in the twentieth century was certainly very fast, and their membership by the time of the Revolution reached a great figure. But most of them were concerned with trade and credit operations only; as regards the improvement of the methods of farming their work was very small, infinitely less than that of the Government or the Zemstvos; it was rather training than work. So, *e. g.*, by 1915 there were less than ten co-operatives (I knew them all by name then, but have forgotten now) which had a technical adviser paid out of their own funds—a fact most significant, inasmuch as one of the very first needs of the villages was indisputably to increase the productivity of the soil. The actual influence of the co-operatives was small; but there was a spirit in them which showed great potentialities for development. From many officials, both of the Government and the Zemstvos, I have heard that, given time, the co-operatives would be able to take the foremost place in the economic affairs of the country; while in the Ministry of Krivoshein opinions were expressed that in a score of years or so they might take over the whole agricultural work of the Government and the Zemstvos.

The results of the combined efforts of the Government, the Zemstvos, and to a small degree of the co-operatives, soon became apparent. It was not that they could or did increase the wealth of Russia or the amount of the grain export. Their chief value lay in demonstrating the truth that individual property is more advantageous than communal, that land given in perpetuity to

the peasant yields much more than the same land minced up into insignificant strips and constantly changing hands.

As told above, the Zemstvos before the reform granted some technical help to the communes. But all they did attain were some partial improvements which did not affect the whole system of farming, and made the increase of crops hardly noticeable. On the contrary, in the *houtors* and *otroubs* the progress became palpable in various branches of farming at once. I remember an excursion which I made in the late spring of 1913 to a district near Kherson, where a group of one hundred *otroubs* had been formed about three years earlier. This district had quite a different appearance from the surrounding communal districts. There only scattered sowing was used—by hand or by means of a primitive drill; here the corn stood in orderly rows. The rotation of crops was fivefold instead of three; most of the farms had near them a piece of land covered with the characteristic green of the lucerne, a plant very seldom to be seen in the commune. The kitchen gardens were a good deal larger than in the communes. It is true the cattle of the settlers did not look any better than in the communal herds; but the books of the breeding stations showed that the settlers brought their cows much more often than the peasants of the commune, although the station was some three miles away, and actually in the centre of a large commune. The loss of the common pasture grounds was quite compensated by such food as lucerne and swedes.

The main result of the reform, however, was not the 25 per cent. or 40 per cent. increase in productivity, but the psychological change in the farmer. The writer remembers hundreds of reports from, and interviews with, Government and Zemstvos workers, enthusiastically maintaining that the peasantry was at last moving from the dead centre. "The peasant has wakened from his slumber"—that was the burden of these reports. For every once that a peasant of the commune applied to the depots for implements, seed, or bulls, the new settler applied several times; he did not wait for the instructor to visit him, but himself asked the commission to send "somebody" to teach him. I heard of instances when the settler, impatient at the non-arrival of the instructor, started himself to introduce some new system of farming which he had read of in a pamphlet or seen at a landowner's estate. He did it all wrong, perhaps, but in this very intention of his he manifested a spirit of enterprise that was absolutely unknown in the commune.

There were failures, of course, especially in the poorer districts,

as, for instance, in Central Russia, where many *houtors* had only twelve or ten acres of mediocre land. An inexperienced official sometimes allotted land which had either no water or a deal too much of it. But these were occasional failures. The figures of the reports and still more the enthusiasm of the new settlers proved that the reform as a whole was a great success, that the power of assimilating culture, at zero in a peasant of the commune, rose suddenly as soon as he was withdrawn from its drowsy influence. I think it was near Kharkoff that a settler asked me to transmit to the Czar "his humblest thanks for the reform that enabled him to become a man." "If you are a man now, what, then, are those who stay in the commune?" I asked. He made a gesture of despondency. "Oh, idiots," he said. Peasant farming, the very backbone of Russia, came to sudden life after centuries of stagnation. In ten or fifteen years the whole economic aspect of the Empire would have been changed.

But the fates willed otherwise. Bolshevism, as applied to rural Russia, has completely undone the reform. Particulars are not available, for Russia is behind a smoke screen; but from many refugees I gather that since 1918 the lands of the *houtors* and *otroubs* have been again incorporated into the communes and redivided into strips. Their owners have either obtained their old share of strips or—"been disposed of": they were proclaimed as bourgeois and—the rest may be easily guessed. All the technical culture that had been introduced into peasant farming soon perished in the frenzy of wholesale destruction; the thoroughbred bulls were shot for the fun of it by hooligan youths calling themselves Red Guards, Communists and the like; machinery was broken up; depots plundered; fruit gardens cut down.

Then came the starvation in the towns. Battalions were sent into the country to "collect" grain. Cattle were slaughtered for beef. Owing to the breakdown of industry and of trade not merely ploughs but axes and even ordinary nails became rare. A traveller passing through Russia to-day would find not the least trace of the immense work done for the peasant by the Zemstvos and by the progressive—the only progressive—department of the old Government.

As to the future one thing only is certain. The larger estates which the peasants have seized will remain in their hands. That, however, will not in the least modify the necessity of starting all over again the agrarian reform, and on the same lines as before, namely, division of communal land into individual holdings and technical assistance to the farmer. The ravages of the

Revolution will probably make the execution of the reform easier in two respects. From sheer reaction against communism the peasant may conceive a strong desire for private ownership. Besides, the hardships of the Revolution may strengthen in him the spirit of co-operation, thus enabling him to take in future a larger share in the management of his own affairs than he did before. This certainly is necessary. Even in the days of peace the educated classes were too few to provide a sufficient number of *agronomers*, settlement officials and bookkeepers for the co-operatives. Now the *intelligenzia* has been half exterminated, and it is for the peasants to fill the gaps. Whether they are able to do it, whether they can govern themselves, nobody dare predict. Russia is a country of the unexpected, even for the Russians.

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BANK RATE AND THE MONEY-MARKET IN THE UNITED STATES

BANKING reform in the United States centred for long on proper control of the note issue. It was not till after the crisis of 1907 that the primary importance of issues of bank-credit was fully realised.[1] The Federal Reserve Act of 1913 aimed at securing control of credit issues by an adaptation of the central banking system existing in various forms in Europe to the particular conditions prevailing in America. In Europe control is exercised mainly through the discount rate of the central bank in each country; a rise in this, when effective, produces a general rise in market rates, and this checks borrowing. The Federal Reserve Banks are expected to exert a similar control.[2] Efforts to prevent over-expansion of credit after the war were accompanied by much discussion as to how far this time-honoured device of raising the discount rate really secured the end desired, and the conclusion both in this country and in America seems to have been that it must, under existing conditions, be accompanied by other measures if credit was to be really restricted. This paper, however, is concerned not with the general question of how far a rise in market rates will limit credit-issues, but with the smaller problem of the effectiveness of the machinery provided under the Federal Reserve Act for securing such a rise. The system has not been working long enough for an appeal to experience to be very helpful; it was not in complete working order till 1917, and for the next three years the market was dominated by war-needs and Government finance. From the beginning of 1920 a policy of regulating credit was begun,[3] but conditions

[1] Cf. Laughlin, *Banking Progress*, ch. ii.

[2] Cf. *Report of the Federal Reserve Board*, 1914, p. 17. Cf. also "Address by P. M. Warburg," printed *Federal Reserve Bulletin*, 1916, p. 102: "The aim of the system must therefore be to keep this gigantic structure of loans and investments both from over-contracting as well as from over-expanding," and A. C. Miller, *American Economic Review*, June 1921, p. 179: "The regulation of the flow and volume of credit being in the last analysis the primary function of the Federal Reserve Banks."

[3] Cf. A. C. Miller, *American Economic Review*, June 1921, p. 190: "With the year 1920 the Federal Reserve Banks entered upon the exercise of their function of regulating credit in accordance with business and economic indications and under circumstances of extraordinary difficulty, and for the first time since the outbreak of the War, undertook to develop a policy of credit control by means of discount-rates."

were still abnormal, and in any case a year and a half is too short a time on which to base definite conclusions. The method here adopted must therefore be an analysis of the machinery for regulation provided by the system with a view to making some estimate of its probable efficiency.

I

With regard to the function of increasing the supply of credit little need here be said. The capacity of the system to do this adequately depends on its controlling a sufficient quantity of resources in relation to the demands likely to be made upon it. The resources at its disposal have steadily increased since it was first instituted.[1] As a result of steps taken in 1917 to centralise the gold supply, most of the gold in the country is now in the possession of the Federal Reserve Banks.[2] It may be confidently affirmed that they are in a position to meet all seasonal increases in demand. With regard to such extreme demands as have arisen on exceptional occasions in the past, it is one of the objects of the new system to prevent such violent crises from arising, but even in the case of a panic there can be little doubt that it would be able materially to ease the situation.

The problem of securing a contraction of credit-issues or of preventing over-expansion is more difficult, and the machinery devoted to that end more complicated. The Federal Reserve Bank rate is intended to be used in the same way as European bank rates. We may now proceed to examine how it is designed to work and how far it is "effective" in the sense of controlling market-rates.

1. In the first place a word or two may be said as to the rate itself. There is in the Federal Reserve system no "official rate" as in England. The rate, or rather rates published by each Federal Reserve Bank are the actual rates at which they do business. Under the Act, the initiative in fixing rates rests with the banks subject to the approval of the Federal Reserve Board. In practice the determination of rates has been in the hands of the Board, the Banks simply accepting its suggestions. There is, further, no one set of rates for the whole country, local conditions determining them in each district, though the shifting

[1] The total resources of the Federal Reserve Banks on May 25, 1921 = \$5,379,760,000.

[2] Cf. *Federal Reserve Bulletin*, 1917, p. 98.

of funds by means of re-discounting between Federal Reserve Banks has done much to secure uniformity.

To be "effective" a rise in the Federal Reserve rate must be closely followed by a rise in the market rate. The machinery of the Federal Reserve Act is designed to secure such a correspondence. A brief description of this machinery may perhaps be given here. The reserves of all the banks belonging to the system must not be less than a certain legal fixed ratio to their demand deposits. Reserves to this amount must be kept at the Federal Reserve Banks. When the limit has been reached fresh deposits can only be taken when reserves are increased. Short of new gold deposits this can only be done by discounting with the Federal Reserve Banks such paper as they are allowed under the Act to discount. These re-discounts when placed to the credit of the discounting bank with the Federal Reserve Bank count as legal reserve, and fresh credit can be issued on that basis. The rate charged by the member bank for these issues will be determined by the rate which it has paid to the Federal Reserve Bank. In this way the rate at which Federal Reserve Banks re-discount affects the rate charged by member banks for discounting paper in the open market.

2. (*a*) Such is the connection established under the Act. The question now is, How does it work? In the first place there is the general difficulty of the lack of an organised discount market in the States. This has been due in the past mainly to absence of commercial paper suitable for discounting and, especially in New York, to the competition of the Stock Market for the available money. While on the one hand high call-loan rates may lead to a diversion of funds from the discount to the speculative market, high Federal Reserve rates, on the other, may have a similar effect. Bankers, knowing that commercial paper could only be re-discounted at a high rate, would tend to give up discounting and invest in call-loans instead.[1] The result might be a check to the issue of commercial credit but an undesirable inflation of speculative credit—a proceeding which has been responsible for many of the New York money-market's difficulties in the past. Special steps are, however, being taken to develop the discount market by encouraging the use of forms of commercial paper suitable for re-discount purposes. In especial

[1] Cf. H. P. Willis, *Magazine of Wall Street*, May 28, 1921, p. 84: "Interior banks have preferred . . . to cut their re-discount obligations rather than to keep them up, and to use the funds held in consequence either in stock-market loans or advances on ineligible paper."

the use of bankers' acceptances and the growth of the acceptance business is aimed at.[1] The use of dollar exchange in foreign trade would have a similar effect. The competition of the call loan-market remains, however, formidable, particularly in New York.[2]

(*b*) Apart from this question of the development of the market, the influence of the Federal Reserve rate will clearly depend on the extent to which banks do in fact re-discount, and this will depend on the relation of their reserves to their deposits. When the ratio between them approaches the legal ratio, money will be tight and market rates rise. When it is reached, further loans can only be made at a rate governed by the Federal Reserve rate. As in England, there are certain seasons in the year when the demand for money regularly increases, the ratio of reserves to deposits decreases, and the Federal Reserve Banks come automatically into control of the market.[3] The periods of greatest demand are from mid-February to early April, from August 1st to October 1st, and the end of December. In addition to these, the collection of taxes at the end of each quarter produces a temporary withdrawal of funds from the market. It was intended that with the abolition of the Independent Treasury system, the Federal Reserve Banks should hold the Government deposits, and with this arrangement in force, these funds would be removed from the market until they were returned by the recipients of Government disbursements. But during the War, Government funds were deposited with all qualified national banks, and the total quantity so held is no less now than in 1914.[4] Under these conditions, funds are

[1] Cf. *Report of the Federal Reserve Board*, 1921, pp. 50, 382. Total acceptance liabilities of all member banks :—

Sept. 2, 1915	$ 13,000,000
June 20, 1917	158,000,000
May 4, 1920	674,000,000
April 28, 1921	504,000,000
June 30, 1921	432,000,000

The drop between 1920 and 1921 is ascribed by many to the shrinkage in trade, not to any disinclination to use acceptances. Cf. *Federal Reserve Bulletin*, 1921, pp. 776, 1052.

[2] Cf. *Federal Reserve Bulletin*, 1920, p. 370; Moulton, *Financial Organisation*, p. 645.

[3] Cf. for this section Kemmerer, *Seasonal Variations*, National Monetary Commission Reports; Moulton, *Financial Organisation*, ch. xxiii.; *Federal Reserve Bulletin*, 1921, p. 777; *Report of the Federal Reserve Board*, 1919.

[4] The total quantity of Government funds held outside the Federal Reserve Banks and their branches amounted in June 1920 to $313,997,973. Of this sum $8,608,654 were deposited abroad.

returned to the market almost as soon as withdrawn. These deposits, it may be remarked, need not be kept within the legal ratio to reserves.

The next most important condition affecting the relation of the member banks to the Federal Reserve Banks is the normal size of their reserve. If it is habitually larger than the legal requirement, they will not tend to re-discount paper much, and the rate which they charge in the market will be little affected by the Federal Reserve rate. Further, if the ratio of reserve to deposits which bankers consider safe is above the legal ratio, they will tend to resort to the Federal Reserve Banks before the legal ratio is reached; if, on the other hand, their estimate is below this, they will be willing to expand their loans freely as long as that is legally possible. It follows that figures of excess reserves held are only really significant in relation to the reserve ratio habitually held. Conditions as regards reserves have been so abnormal since the Federal Reserve system came into operation, that little can be said as to the ratio which bankers in general consider safe at the present time. It has been estimated that the ratio of all demand deposits to money before the War never exceeded 8·1 per cent,[1] and the general tendency is probably rather towards a too liberal than a too conservative estimate of the proper size of the credit structure relatively to its foundation.

Large imports of gold such as occurred in 1916 and have been occurring recently will tend to lessen the effectiveness of the Reserve rate. Thus the Board supported the removal of the embargo on gold exports in 1919 in the hope that the depletion of gold reserves would give them some control over the market.[2] Where bank-rate is raised with the object of preventing an export of gold, as it used to be in England before the War, this state of affairs would not matter much. In America, where the rate is mainly needed as a check on the undue expansion of credit for speculative purposes, an expansion which is particularly likely to occur when gold reserves are increasing, the loosening of the connection with the Federal Reserve rate at such a time is likely to be especially dangerous.

The situation as regards reserves may be summed up as follows: if the banks know that they may shortly want to increase their reserves by re-discounting, they will tend to charge their customers a rate higher than the Federal Reserve rate;

[1] Sprague, "Discount Policy of Federal Reserve Banks," *American Economic Review*, March 1921.

[2] Cf. A. C. Miller, *American Economic Review*, June 1921, p. 182.

otherwise, there will be a strong tendency to charge a lower one. The real condition of reserves may not be obvious at first sight, partly because, as already pointed out, the bankers' minimum may be different from the legal minimum, partly because reserves above the legal ratio may not be kept at the Federal Reserve Banks, but elsewhere. At present the greater part of the gold in the country is in their hands, but there seems no particular reason why this should always be so.

(c) In the next place, the control of the Federal Reserve Banks is weakened by the fact that not all the banks in the country are in the system. In June 1920 the aggregate resources of all the member banks = \$32,194,301,000, making 70 per cent. of the total banking resources of the country; the remaining 30 per cent. held by non-member banks amounted to \$13,829,370,000.[1] The existence of banks outside the system lessens control over the discount rate in two ways. In the first place, non-member banks are not bound by the legal minimum reserve, and can therefore expand credit to any extent that they see fit. Secondly, Federal Reserve notes which do not count as legal reserve for member banks can be used by non-member banks for reserve purposes. The system thus increases their power to extend credit without exercising any corresponding check on them.

(d) This brings us to a further peculiarity of American banking which makes the bank rate there less directly effective than it is in Europe. Increased loans from the Bank of England, for instance, mostly go directly to swell the available funds in the money-market. Increased re-discounts by the Federal Reserve Banks are generally used to increase reserves on which further loans are based. It follows that though re-discounting will oblige a member bank to raise the rate at which it makes its own loans, this rise will only be proportionate to the rate at which it has itself borrowed and not equal to or above it.[2] A rise in the Federal Reserve rate will have to be very high in order to produce a moderate rise in the market-rate, the exact relation between the two depending on the amount of fresh loan credit which the bank bases on its borrowed reserve. The official theory now appears to be that the Federal Reserve rate will be so high that resort will only be had to it in times of pressure.[3] It has been found in practice, however, that Federal Reserve resources have been used as a basis for profitable operations by

[1] *Report of the Federal Reserve Board*, 1920.

[2] Cf. Reed, *Journal of Political Economy*, January 1921.

[3] *Report of the Federal Reserve Board*, 1919, pp. 2, 67.

member banks.[1] An Act was passed in April 1920 providing for the application of extra high rates at Federal Reserve Banks to specially heavy borrowers.[2]

(*e*) In England, the connection, not by itself a very close one, between the bank rate and the market rate is made closer by the fact that the banks adjust their deposit rates in relation to movements in the bank rate. This adjustment is purely the result of custom. In 1918 a similar link was established between bank-deposit rates and the Federal Reserve rates. Competition between banks for deposits appeared likely to push up the interest allowed on them; following on a letter from the Governor of the Federal Reserve Board in February, pointing out the inconvenience of a general rise in rates at that time, an agreement was made between the clearing-house banks of New York in March to fix the maximum rate for deposits in relation to the New York Federal Reserve Banks' rate on 90-day commercial paper.[3] In July the Chicago banks adopted the same system, and further efforts to fix deposit rates were made in August. In 1920, however, the Board itself objected to this arrangement as hampering it in fixing discount rates,[4] and on January 16, after a meeting of bankers held at Washington to discuss the question, the New York Clearing House Association fixed a maximum rate for deposits of 2½ per cent., and similar action was recommended at Chicago.[5] Any such link is therefore for the present non-existent.

There is one connection between the market and Reserve Banks which may be expected to become more important as time goes on. In England a rise in the bank rate acts mainly through its effect on the bill-brokers who are obliged, when money is short, to borrow their working capital from the Bank of England, and who fix their discount-rates to correspond. The American money-market is less specialised, and the part played by separate discounting institutions smaller, but traces of a similar process

[1] *Federal Reserve Bulletin*, 1918, p. 1169; 1920, p. 558.

[2] Cf. *Report of the Federal Reserve Board*, 1920, p. 2.

[3] The exact arrangement was an advance of ¼ of 1 per cent. in interest rate for every advance of ½ of 1 per cent. in the Reserve Banks' rate up to a maximum of 3 per cent. in the interest rate. Cf. *Federal Reserve Bulletin*, 1918, p. 252.

[4] *Federal Reserve Bulletin*, 1920, p. 3: "The Board wishes to be free to approve such discount-rates as conditions may make necessary or desirable, but it is anxious at the same time to avoid a disturbance of the whole banking system such as would most likely result from an advance in the interest rates allowed on out-of-town balances."

[5] For this paragraph cf. *Federal Reserve Bulletin*, 1918, pp. 160, 252, 806; 1920, p. 117.

have been observed there. The advance in rates in 1920 had, according to the *Federal Reserve Bulletin* (1920, p. 345), "an unexpected effect" in shortening loans from commercial paper-brokers. As the discount-market develops the rôle of paper-broking is likely to become more important and the effect of their operations on the market greater. This would provide a direct link between the market rate and the Federal Reserve rate, and its sensitiveness to changes in the latter would then be correspondingly greater.

On the whole, however, it appears that the direct connection is only an uncertain one. As Professor Willis says, "the rate itself has only a minor influence upon current market rates except when it is considered as part of a broad general policy."[1] Its failure was demonstrated during the period May 1920–May 1921. "It has, of course, been obvious that the high rates which have been charged in some quarters have not been due to the policy of the Federal Reserve Banks, particularly as such high rates have frequently been asked by institutions which were in no way dependent on Federal Reserve Banks for accommodation, while, on the other hand, not a few which have been largely accommodated have seen fit in some cases to continue their old rates to customers, who were thus carried at a charge which was distinctly less than that of the Federal Reserve Banks themselves."[2] Steps will therefore have, as a rule, to be taken to make a rise in the Reserve rate effective.

II

When the Bank of England ceased to be the principal discounter of bills in the London money-market, and special measures had to be taken to make its rate effective, it was on operations in the open market that it chiefly relied. Provision was made for enabling the Federal Reserve Banks to reinforce the raising of their rates in a similar way. "It was the intention of the Federal Reserve Act," says Professor Willis, "to provide a means whereby the banks could make their rates effective."[3] Under the Act they are empowered to buy and sell gold, United States paper, cable transfers, bankers' acceptances, and such commercial paper as is eligible for re-discount. Such transactions enable them to affect market rates directly, giving them control not only

[1] H. P. Willis, *Magazine of Wall Street*, May 28, 1921, p. 84.
[2] *Federal Reserve Bulletin*, July 1921, p. 775.
[3] H. P. Willis, *American Banking*, p. 325.

over member banks, but over non-member banks as well. This is indeed sometimes regarded as the chief means by which control is to be exerted. "If this function (of carrying on open-market transactions) were not . . . exercised, the making of the discount rate effective would be entirely dependent upon the extent to which member banks chose to obtain re-discounts from the Federal Reserve Banks. With the power on the part of the Federal Reserve Banks to go into the open market, the control of the prevailing interest rate is always in the hands of the Federal Reserve Banks if they have a substantial amount of loan funds at their disposal."[1] The extent of their power depends on how large a quantity of resources they can employ in such transactions. The following tables show the resources at different dates of the Federal Reserve Banks and of all other banks in the United States, and the relative resources of Federal Reserve and member banks at different centres in April 1921.

TABLE I.

Total Resources.

(In thousands of dollars.)

	Federal Reserve Banks.	*All other Banks.*
	$	$
June 1916	624,000	27,804,000
„ 1917	2,053,000	32,271,000
„ 1918	3,872,000	40,726,000
„ 1919	5,288,000	47,615,000
„ 1920	6,074,000	53,079,000

TABLE II.

Total Resources (April, 1921).

	1. *Federal Reserve Banks.*	2. *All member banks in the district.*	3. *Percentage of 1 to 2.*
	$	$	
Boston	447,449	2,078,561	21·5
New York	1,621,855	8,884,855	18
Chicago	835,909	4,292,887	19
Dallas	143,102	924,979	15
San Francisco	417,398	2,357,517	18

Their power in this direction is to some extent checked by the limitation on the kinds of paper they may buy, and on the amount of acceptances which any one bank may hold. In this

[1] H. P. Willis, *American Banking*, p. 171. Cf. also "Address by Mr. P. M. Warburg," printed *Federal Reserve Bulletin*, 1916, p. 102. "In order effectively to develop their operations, Federal Reserve Banks cannot depend upon the borrowing requirements of their member banks alone, . . . the first year's experience has already shown that they must look largely to open market operations . . . in order to secure their share of business and influence."

connection the development of the acceptance business is particularly important, since bankers' acceptances are specially suitable for their operations.[1]

These open-market transactions enable the Federal Reserve Banks to control rates by increasing or lessening their sales and purchases as occasion may demand.[2] By buying less or selling their holdings at low prices they will tend to raise market-rates. They will be most active in the market at times when money is tight and it is desirable to increase loanable funds. But if this is to be successful, the banks must be continually carrying on business in the buying and selling of paper in normal times,[3] and this is not compatible with the theory referred to on page 67, that the Federal Reserve rates should as a rule be higher than market rates.[4]

It has been suggested that another possible method of control lies in the regulation of the note-issue.[5] If the amount of fiduciary notes is limited, the demand for other kinds of cash will be increased. This will tend to deplete the legal reserves of the banks and so force them to increase their re-discounts or to limit their loans. In practice raising Reserve rates has been accompanied by direct suggestion and exhortation on the part of the Board and by the adoption of "rationing" credit, attempted discrimination between essential and non-essential loans and special high rates for heavy borrowers.[6]

The following chart shows the movement of discount and call rates in the New York market, together with the discount rate of the New York Federal Reserve Bank from November 1914 to June 1921.

The history of the rates is briefly as follows:—During the period November 1914 to November 1916 the reserves of the banks were very large, and the legal reserve requirement had just

[1] Cf. Warburg, *Federal Reserve Bulletin*, 1916, p. 102: "Their most important field in this respect is the banker's acceptance." For the development of the acceptance market, cf. the table given on p. 66.

[2] Warburg, *Federal Reserve Bulletin*, 1916, p. 102.

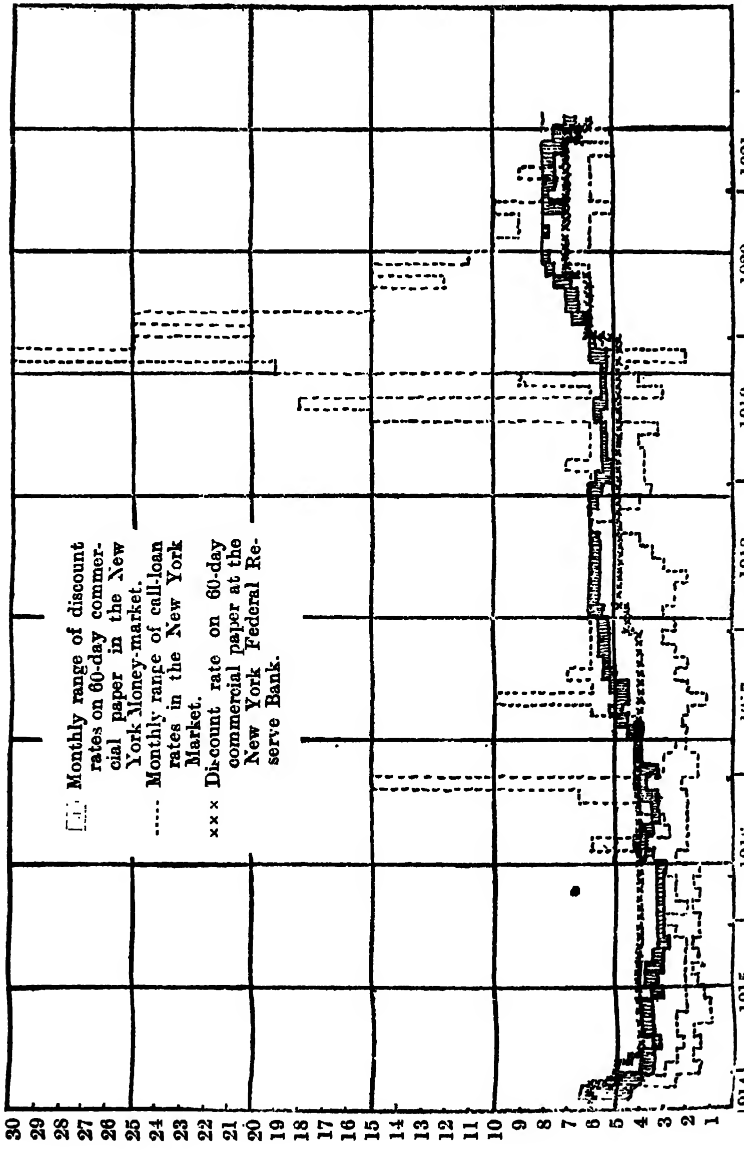
[3] Cf. *Report of the Federal Reserve Board*, 1914, p. 18: "To influence the market, a Reserve Bank must always be in the market."

[4] Cf. *Federal Reserve Bulletin*, 1917, p. 76: "In view of the fact that the rate for bankers' acceptances recently maintained by the Federal Reserve Banks has been somewhat higher than the open-market rate, the holdings of acceptances by the Federal Reserve Banks have been materially reduced during the past weeks."

[5] A. C. Miller, "Federal Reserve Policy," *American Economic Review*, June 1921.

[6] Cf. *Federal Reserve Bulletin*, 1918, p. 1169; 1920, pp. 118, 456, 558; *Report of the Federal Reserve Board*, 1920; 1921, p. 58.

been lowered; the full legal reserves had not yet been entirely transferred to the Federal Reserve Banks; consequently there was



little re-discounting, market rates were low and the Federal Reserve rate had practically no influence. By the end of 1916 the process of transferring reserves was completed, and the immense demand for capital pushed market rates up to the

Federal Reserve rate. During the period when the United States were in the War, the financial policy pursued was to keep the Federal Reserve rate low in order to enable the banks to discount Government paper cheaply. This state of affairs continued during 1919. In January 1920 and again in June, the Federal Reserve rate was raised, but in both cases the rise in market rates preceded it.[1] It cannot be said that changes in the Federal Reserve rate have so far done anything in the way of anticipating or hurrying on a change in market rates.[2]

A table of the re-discount and open-market operations of the New York Federal Reserve Bank and of all the Federal Reserve Banks 1920–21 is appended.

TABLE III.

	New York Federal Reserve Bank.		*All Federal Reserve Banks.*	
	Bills discounted.	Bills and Treasury Certificates bought.	Bills re-discounted.	Bills and Treasury Certificates bought.
	(In thousands of dollars.)		(In thousands of dollars.)	
1920.				
January . . .	3,454,051	309,283	7,290,872	1,043,084
February . . .	3,798,319	274,220	6,517,439	604,604
March	3.755,960	818,365	6,970,331	1,796,746
April	3,165,858	847,754	6,229,740	1.244,647
May	3,181,044	194,884	6,135,984	42,996,739
June	3,425,123	923,338	6,336,642	1,461,197
July	4.044,470	498,538	6,714,924	803,983
August . . .	3,091,647	189,010	7,982,524	284,028
September . .	4,412,393	781,693	7,298,969	1,147,295
October . . .	4.914,286	221,943	7.548,456	464,759
November . .	5,088,376	296,005	7,882,933	830,976
December . .	6,207,902	623,723	9,461,658	1,176,322
1921				
January . . .	5,565,144	224,738	8,257,762	396,440
February . . .	5,631,398	60.835	8,120,849	188,335
March	4,271,628	359,667	7,368,268	597,742
April	2,469,906	98.331	4,912,652	171,476

III

Apart from the actual machinery provided under the Act, there are certain other conditions affecting the situation which may be grouped together here.

[1] Cf. *Report of the Federal Reserve Board*, 1921, p. 381.

[2] Cf. W. P. G. Harding in the *Federal Reserve Bulletin* for August 1921, p. 895 *sqq.*

For one thing, bank reserves in America are not so sensitive to changes in credit as they were, for instance, in England before the War.[1] The system of fiduciary note issue is such that an expansion of credit is less directly followed by a depletion of reserves than here. The disorganised state of international trade has, at the present time, the same effect, and in any case, unless New York develops a large international short-loan business, the effect on reserves through foreign Exchange channels will always be less immediate than in London. Scientific opinion in the United States is moving towards the adoption of some other criterion than the reserve ratios for regulating credit, such as the movement of prices,[2] but the business public are still actuated by a belief in the old test. It follows that it may be difficult to secure support for a general rise in discount rates unless the reserve ratio is visibly affected, even though credit conditions may make it advisable. In the next place, opposition to a rise in Reserve Bank rates may be more strongly roused than in England owing to the fact that here it affects first, and most directly, the bill-brokers, who are less powerful and organised than the banks. In America, where re-discounting by the banks is much more frequent, the impact falls directly on them and will be more immediately felt. Further, there is considerable suspicion of the Federal Reserve Banks as being in some way backed by the State, and jealousy of their competition might make extensive market operations difficult. On the other hand, as the success of the system and the real advantages resulting from it become more and more recognised, it is acquiring a prestige which will give to its advice and to its actions an influence making such difficulties as have been considered much less important.

The problem of securing effective control over market rates is more complicated than it is in England, and it is at a different stage of development. Here the device of raising the bank rate worked best when the Bank of England was the largest institution in the market, and the other banks were small and not very numerous. The difficulty now is that the bank is confronted by a very few, very powerful banks. In America, on the other hand, the attempt at central control has to face a very large number of banks over an immensely diversified area, some large and powerful, others small and inefficient. Organised co-

[1] Cf. A. C. Miller, *American Economic Review*, June 1921, pp. 192–196; *Federal Reserve Bulletin*, 1919, p. 911.

[2] Cf. Sprague, "Discount Policy of the Federal Reserve Banks," *American Economic Review*, March 1921. Also Reed, "The Work of the Federal Reserve Board," *Journal of Political Economy*, Jan. 1921.

operation between the central authorities and the other banks, which is one solution for the English situation, is, for good or ill, much more difficult to secure in the latter case. As regards existing arrangements, the Federal Reserve rate by itself is not likely to be effective at all times. The use of operations in the open market to enforce it has not yet reached full development, but with the growth in the resources of the Federal Reserve Banks, and with increased organisation of the discount market, these will become more important, and it is on them that chief reliance will probably be placed in the future.

J. E. NORTON

REVIEWS

Political Economy Club founded in London, 1821. (Centenary Volume: Macmillan & Co., Ltd. 21*s.* net.)

The history of this famous club, it has been observed, may be said to be the history of Political Economy since 1821, at all events in England; and it therefore fully deserves the record which Mr. Henry Higgs has compiled with conspicuous success as a centenary volume. No fitter historiographer indeed could have been chosen by the club, but the materials at his disposal, beyond the lists of members and of subjects discussed, were not too abundant; the most diligent inquiries instituted many years since have failed to reveal any account of the discussions except those contained in two diaries and a few scattered allusions; nothing beyond formal minutes have ever been kept by the Secretaries; and it has proved difficult to elicit so much as had been hoped in the way of written recollections from the older members. The two diaries referred to, however, those of Mr. J. L. Mallet, an original member, and Mr. Prevost cover pretty fully between them twenty or thirty of the earlier years of the club's history; reminiscences of great interest have been contributed by Mr. Stebbing, now the *doyen* of the club, and by the late Lord Courtney, who had carried on its traditions from the days of John Stuart Mill. He was for fifty years a frequent attendant at the dinners, and his few pages of appreciation of members like Newmarch, Bagehot, Cairnes, Cliffe-Leslie, Jevons, Lord Bramwell, Lord Addington, Lord Avebury, Henry Grenfell, Thring, Farrer, and Giffen are only less valuable than the paper left by the late Sir John Macdonell. By much search in published biographies, Mr. Higgs has disinterred many allusions to the club's activities by members such as J. B. Say, Nassau Senior, Lord Overstone, and Sir Charles Dilke; and his own introduction and concluding remarks not only tell us all there is to be known about the conduct and constitution of the club since its foundation, but also give us the impressions of a well-qualified observer—tinged by regrets, which some who have witnessed the really remarkable revival of vitality in the

discussions of the club during the last twenty years will hardly share, for the "antique air" and more academic and subdued discussions (accompanied by early Victorian cooking) of earlier days!

How little after all remains of the variety of talk, argument and discussion which has taken place at the 700 dinners of the last hundred years—talk and argument which has helped to make history by forming the opinions of three or four generations of the leading men among publicists and writers on economics, statesmen and civil servants, and banking and industrial magnates! But there is wisdom in the rule precluding the reporting of speeches which would have hampered discussion without adding to the sum of knowledge; and enough remains to enable the reader to trace the various phases through which political economy has passed in the last hundred years. Sir John Macdonell has with this object given us an able and acute analysis of the questions propounded, and divided the life of the club into three periods, 1821–1846, which he describes variously as the age of principles or dogma or the age of *laissez-faire*, dominated by James Mill, Ricardo, Malthus, Tooke and McCulloch; the second, 1846–1871, a period of transition in which questions of the relation of employers to workmen, of capital to labour, of strikes, hours of labour, and trades unionism were just beginning to assume some prominence, and in which John Mill, Chadwick, Thornton, Lowe, Senior, took a large part in discussion; and the third, from 1871 to our own days. On this last period Sir John unfortunately touched but lightly, and it would perhaps be impossible, however interesting, to sum up its discriminating marks in a few phrases. He hints, however, that the tendency to select "comparatively small questions and incidents of the day" as the basis of discussion is due to timidity, and to loss of faith in principles. The period is undoubtedly marked by greater modesty; but no one who has followed at all closely the discussions of the last twenty years will be likely to attribute to the leading protagonists any absence of conviction in dealing with fundamentals, though certain "principles" may have suffered shipwreck in the controversies of the last century. Whether bimetallism, or free trade, or Government finance, or some issue involving socialist theory in one of its protean forms were in question, there seemed to be plenty of convinced thought in the speaking. It is true that, though, as Sir John Macdonell most justly notes, the door has always been kept open for "heretics," and has always welcomed them and given them fair

play, the club has not of late or perhaps at any period attracted as members men who could be described as advanced or revolutionary thinkers; but this very fact seems to show that more continuity in its views has been maintained than Sir John Macdonell's description of his third period (which, however, is perhaps meant to apply rather to the science than to the club) as one of "socialism without doctrines," or of "pacific anarchy," would indicate. It is no bad thing that principles and ideas which may be unfashionable on public platforms or in the House of Commons, should still find expression in a club which remains, what it has been for a hundred years, a "common meeting ground of theorists and practical men."

BERNARD MALLET

Prices and Wages in the United Kingdom, 1914–1920. By ARTHUR L. BOWLEY, Sc.D. ("Economic and Social History of the World War"). (Oxford: Clarendon Press, 1921. Pp. xx + 228. Price 10*s*. 6*d*. net.

THE division of Economics and History of the Carnegie Endowment for International Peace has planned an "Economic and Social History of the World War," and the present monograph by Dr. Bowley is among the first of the series arranged by the British editorial board. Its subject is the movement of prices and rates of wages in the United Kingdom from the outbreak of war in 1914 down to about the middle of 1920, the latter date, as it happens, marking the culmination of the upward movement characteristic of the period.

The data are for the most part derived from official records already published, and Dr. Bowley, as we should expect, presents them with admirable skill. The result is a highly valuable epitome, critical and appreciative, of the facts about prices and wages during the war period, so far as they have been made public.

Prices and wages are, of course, pre-eminently subject to treatment by the method of Index Numbers, and Dr. Bowley has a good deal of criticism to offer of the validity, under war conditions, of the well-known Index Numbers of prices and the Cost of Living. He considers that "the ordinary methods of measurement of prices are not valid in times of catastrophic change," and become "almost meaningless" (p. xviii) when prices are controlled and supplies are short and rationed, because

in such circumstances the commodities affected cease to be subject to the ordinary laws governing "value in exchange." Again, the general condition that the items comprised in an Index Number should be of constant or uniform quality and character was unfulfilled during the war, for some articles (*e. g.* beet sugar) practically disappeared, and the quality of others (*e. g.* flour) varied. Further, when prices are violently fluctuating, the weights assigned to the various items in an Index Number become of much more importance than when price oscillations are (as in normal times) fairly moderate. The larger the number of independent items entering into the Index Number, the less will be the effect produced by the abnormal influences affecting some of the items, but neither the "Economist" nor the "Statist" Index Number has a sufficiently wide basis to withstand the shock of war disturbances. The Board of Trade Index Number of wholesale prices has escaped some of the difficulties befalling the other two numbers, but Dr. Bowley thinks that it was not sensitive enough to price changes in 1918 and 1919. All three Index Numbers, however, agree very closely down to some date in 1918. They then diverge, and the subsequent course of prices becomes indefinite. But the divergence arises mainly from differences in weighting.

The critical examination of the basis of the various Index Numbers in common use is a useful feature of the book, and it is worth noting that, on the whole, the Index Numbers do not suffer much from it. The only doubt we have is whether Dr. Bowley does not over-rate the effect produced by the price-controls during the war. In some cases, prices were fixed high enough to exhaust the demand. Higher prices could have been obtained, but smaller quantities would have been consumed, with resultant disturbance of the "weights." The prices of all goods were not controlled, and there was a great deal of substitution of uncontrolled for controlled articles, leading to higher prices for the former. So far as the prices of the uncontrolled articles entered into the Index Numbers, they would go some way towards counteracting the artificially low prices of controlled articles. It is true there were not many important articles the prices of which were not controlled! But if Index Numbers are to be invalidated because prices are not determined by the free play of supply and demand, what becomes of any of our Index Numbers in these days of trusts and combinations?

The more important results of Dr. Bowley's study may be briefly summarised. The table below contains figures showing the course

of wholesale and retail prices. There was a rapid rise during the first three years of the war, but this was checked during the next two years, when the control of prices by the Government was in full operation. From about the middle of 1919, after the removal of many of the controls, prices again increased rapidly. In the second quarter of 1920 wholesale prices in general reached their maximum, but retail prices continued rising until the last quarter of that year, and finally turned at a lower maximum than wholesale prices. Dr. Bowley makes the generalisation that for the three years beginning September 1914 there was nearly an uniform rise in retail food prices of 1·7 per cent. per month, and in wholesale prices a monthly rise of about 2 per cent. In some months there were rather wide deviations from these percentages, but on the whole the closeness to an uniform rise is remarkable.

Dr. Bowley has many criticisms of the Labour Ministry's "Cost of Living" Index Number. In particular, he states that too little importance is given to margarine, and, in the later years of the war, too much weight attaches to sugar, butter, eggs and cheese. It is also suggested that the official figures for the cost of clothing considerably exaggerate the actual rise, at least down to 1918. This leads Dr. Bowley to construct a modified Index Number, which indicates a smaller rise than the official number. Both Index Numbers (together with price and wage Index Numbers) are given in the following table for certain dates.

Year.	Retail Food Prices (*Labour Gazette*). (June 30 or July 1.)	Wholesale prices ("Statist.")		"Cost of living."		Wage-rates for a normal week (Bowley). (July.)
		Food (second quarter).	General (end of June).	*Labour Gazette* (July).	Bowley (July).	
1914	100	100	100	100	100	100
1915	132	144	129	125	120	105 to 110
1916	161	173	159	145	135	115 ,, 120
1917	204	233	218	180	160	135 ,, 140
1918	210	227	233	205	180	175 ,, 180
1919	209	233	242	210	185	210 ,, 215
1920	258	328	310	252	220	260

The "Cost of Living" numbers include food, rent, clothing, fuel and light, and sundries. Dr. Bowley does not claim superior reliability for his own number, but he suggests that it indicates that the official number is too high. A large part (in some cases more than half) of the difference between the two numbers arises from Dr. Bowley's assumption that the increase in the cost of

clothing has been only half that calculated for the official number. The latter has, however, just received practical confirmation in the recent Labour and Trade Union inquiry into the Cost of Living,[1] so that we may say that the weight of evidence is against Dr. Bowley. Perhaps, as Dr. Bowley himself hints, the truth lies between the two Index Numbers!

As regards wages, there was little change in *rates* (although earnings substantially improved) during the first few months of war, but in 1915 a general upward movement began, followed later by the grant of war bonuses. Dr. Bowley's Index Number for rates of wages for a normal week (given above) is based on a miscellaneous collection of data, difficult to handle, and his own conclusion is that "so far as a general statement can be made, we may say that *rates* of wages for the same work increased less rapidly than the cost of living in the first three years of the war, in the fourth year wages gained and their increase over four years was nearly that of the modified index (*i. e.* his own index). In 1918-19 wages gained rapidly and reached the official cost of living measurement, and they kept pace with it in the year 1919-20" (p. 106). *Earnings*, however, in numerous cases increased more rapidly than prices from 1914 to the Armistice (p. xix). The investigations show a diminution of the margin between the wages of skilled and unskilled labour, and a levelling up of district wages, probably resulting, as Dr. Bowley suggests, in a position of economic instability. Dr. Bowley is unable, from the data available, to compute the effect of the changes on the aggregate wages-bill of the country, nor can he decide whether, on the average, real wages have risen or fallen.

The following few mistakes and printers' errors may be noted. On p. 34 the figure for margarine in the last column should be 57·9, and the total of the column 2329·2; the Sugar Commission did not raise the price of sugar in August 1914 to $3\frac{3}{4}d.$ (p. 53), but lowered it to that figure from a higher one caused by panic-buying; glucose and saccharin were widely used as substitutes for sugar (pp. 58 and 73); in the table on p. 73 the quantity for sugar in the fourth column should be 3·05 lb.

Dr. Bowley has done a very valuable piece of work, and if the companion volumes of the series are as well done and as informative, the series will be indispensable to all who take an interest in the social and economic history of this country.

A. D. WEBB

[1] *Final Report on the Cost of Living.* George Allen and Unwin, Ltd., 1921.

The Fruits of Victory: A Sequel to "The Great Illusion." By NORMAN ANGELL. (London: W. Collins Sons & Co., Ltd. Pp. xviii. + 338.)

IT would be unjust to Mr. Angell, and would only serve to foster a misunderstanding from which he has suffered more than enough already, to treat his last work as solely or even primarily an essay in economics. Few writers have elucidated more clearly the true nature of the connection between economic and spiritual things; nor has he himself ever put the matter better than in two pregnant sentences of this book. "This does not mean that economic considerations should dominate life, but rather the contrary—that those considerations will dominate it if the economic truth is neglected. A people that starves is a people thinking only of material things—food." "The real economic argument against war . . . consists in the fact that war, and still more the ideas out of which it arises, produce ultimately an unworkable society." Nevertheless, in Professor Cannan's phrase, there is a more and a less material side of human happiness; and it is with Mr. Angell's views on the former that this review must be chiefly concerned.

These views are developed for the most part in the first two chapters of the book, and in a way which seems to us to exhibit a great advance in strength of thought and exposition on Mr. Angell's earlier manner. If the stream is not always as limpid as that of *The Great Illusion*, it runs deeper and carries a heavier freight. Mr. Angell does not shirk the element of competition which mars and complicates those general relations of economic interdependence between nations which constitute his main theme. It is indeed necessary for him to stress this element of international competition in order to make good his case about the difficulty of exacting a huge war indemnity (a point on which he indulges in a legitimate crow over his orthodox critics of ten years ago); and he seems to recognise that having stressed it in one connection, he cannot very well ignore it in others. He is driven, therefore, to urge that the principle of economic co-operation between nations works sometimes in roundabout and unexpected fashion—that (to take the most important example) the fact that industrial Germany is the economic centre of Central Europe and Russia may render the reconstruction of German industry a British interest, even though her leading manufactures compete directly with our own. He is driven, too, to represent his old trump card, the complexity of the

structure of international credit, less as the crowning symbol of a world perfectly differentiated and adapted for economic co-operation than as a last desperate device for making the best of a bad job and keeping the Malthusian devil at bay.

Further, Mr. Angell finds himself compelled to recognise the increased importance of the State as an economic entity. A political frontier, whatever we may wish it to be, is no longer in fact an economic irrelevance running innocuously athwart the lines of individual trade. The modern State can and does aim directly at promoting the material welfare of its citizens and damaging that of foreigners by reserving to its citizens the right of access to raw materials and to markets and in similar ways. There is no doubt that the State Socialism of war and of reparation machinery have wrought a vast change in this respect: yet perhaps Mr. Angell overstates the case when he says that "the Allies have transformed what were, before the war, dangerous fallacies into monstrous truths." It seems likely that history will regard the war and the peace, on their economic side, rather as the climax of forty years of growing stress and clash of interests than as a cataclysmic reversal of a harmonious progress towards the obliteration of economic frontiers. And it is even possible that the pre-war prophets of economic nationalism, whether they counselled well or ill, at least read more correctly the signs of the times than those who sang over again the soothing songs of the golden 'sixties in a changed and overpeopled world.

Those who are conscious of laying a different emphasis from Mr. Angell on these matters will perhaps feel that he has imparted an unreal simplicity to the choice which faces the modern statesmen. What measures in the way of preference or subsidy, of protection of the interests of nationals abroad, above all of immigration laws, are justifiable, and what must be ruled out as foolish and provocative? Must we do *nothing* that might injure others—not even control coloured immigration into undeveloped territory? Yet such doubts and differences need not prevent us from endorsing Mr. Angell's main conclusion. The more real is the disharmony of interests between the members of different communities and the more prominent becomes the State in the rôle of trader and debt-collector, the darker, he reminds us, becomes the prospect before the human race unless the nations can learn to fix their attention also on the other side of the shield—on the avenue of escape which conscious and systematic co-operation offers from intolerable poverty and incessant conflict, and on the certainty that prolonged or recur-

rent war will destroy the material basis of civilisation. If the surrender of the weapons of economic nationalism involves risk, so does their brandishment. When all is said and all qualifications made, we come back finally to Mr. Angell's main thesis—that the real economic case against war and the policies that make for war is that they produce ultimately a society which will not work.

The rest of the book is in the main a telling indictment of war psychology, illustrated with an astonishing galaxy of relevant quotations, among which Sir Arthur Conan Doyle's prose hymn of hate, and the ecstatic *Times* leader of 1870 on the annexation of Alsace-Lorraine, seem particularly worthy of preservation. Mr. Angell makes effective use, so far as an ignoramus can judge, of the technical apparatus of modern psychology. Perhaps he is a little hard on the war-working duchesses (p. 161): some part of the heightened social sense which he attributes entirely to the instinct of hate might surely be attributed to the instinct of self-preservation—which is not quite the same thing. Perhaps, too, alongside the familiar tendency to rationalise our emotions he might have mentioned the somewhat worthier tendency to emotionalise our reasons—to stimulate our will-power by appropriate emotions to the difficult task of executing decisions arrived at originally on rational grounds.

As against the disappointed idealist, who believed that a "just war" might be waged blamelessly and give rise to a just peace, Mr. Angell seems to hold that the thing was not psychologically possible. "The most righteous war can only be kept going by falsehood. The end of that falsehood is that our mind collapses." "Our machinery [of propaganda] developed a psychology which made our higher political aims quite impossible of realisation." If this be so, the problem of personal and political conduct returns insistent and unsolved. Granted, as Mr. Angell seems to grant, that war may sometimes be rightly chosen as the lesser evil, where should be the limit of our acquiescence? At the collective murder of civilians? Or at collective lying, *alias* propaganda? Or at collective food-production for collective murderers and liars? One lays down Mr. Angell's work with the feeling that one would not know much better how to behave in the event of another war than in the last; but with the feeling, too, that he has written a thoughtful and fearless and moving book, a sincere and eloquent contribution to straight thinking and right feeling, which deserves many and

attentive readers, since from the unspeakable menace that overhangs mankind "there is no refuge but in truth."

D. H. ROBERTSON

Our Social Heritage. By GRAHAM WALLAS. (London: George Allen & Unwin, Ltd., 1921. Pp. 292. Price 2*s.* 6*d.*)

THIS valuable essay in reconstruction deals "with the ideas, habits, and institutions directly concerned in the political, economic, and social organisation" of modern communities. These are our social heritage, and the vital problem of to-day is how we can maintain and improve our inheritance.

Mr. Graham Wallas gives us his first definite conclusion in the fourth chapter, when he states "that no social organisation can be stable which is not supported by a larger measure of general consent than is now found in any great modern industrial community." And such consent could only be attained by a "much nearer approximation to economic and social equality than now exists in any industrial nation." Many expedients have been proposed to bring us nearer to such an equality, and Mr. Graham Wallas is of the opinion that with "a certain amount of patience and goodwill" we ought to be able to utilise these expedients, or invent others, which would enable us to secure our end without too much loss of national wealth. The only expedient which he examines, however, *i. e.* Guild Socialism, or any similar form of Vocational Society, he rejects after a searching analysis of its guiding principles and its inevitable tendencies.

The organisation of persons employed in a common occupation is not only inevitable, but in many ways socially valuable. It adds to the dignity and happiness of the individual, and makes for more competent performance of his duties. The difficulties begin when the organised worker—whether professional man or manual labourer—claims not only to influence his conditions, but to dictate them. When the workers begin to arrogate to themselves the exclusive right of demarcation of their functions, of fixing the terms of entry to and expulsion from their ranks, and the price at which their services shall be rendered to the community, we risk not only stagnation, but definite retrogression. The danger is increased when the vocational bodies as a whole make it their policy to support each other's claims.

In a very interesting chapter on "Professionalism," Mr. Graham Wallas examines the results, actual and potential, of

self-government in the Law, Medicine and Teaching. He selects the professions rather than the Trade Unions, because the aggressive attitude of the latter towards the capitalistic organisation of industry, and their avowed intention of undermining the existing system, are apt to confuse the question at issue. He finds, however, in the professions a sufficiently valuable object lesson. The elements common to all vocationalism are a universal shrinking from change of habit, a contemptuous intolerance of all ideas initiated by outsiders, and a glorification of the average, based on the conception of identity of work and reward. The most glaring example of conservatism, and of persistent obstruction of whatever might make for progress and increased service to the community, is afforded by the legal profession. The professional spirit of doctors is better than that of lawyers, for while law remains practically stationary, the science of medicine is transformed every decade. Nevertheless, we find among medical practitioners the same shrinking from the effort of rehabituation, the same distrust of outside influences, and a very similar attitude towards the question of internal reform. In the teaching profession organisation is a later growth, and the benefits derived from it naturally bulk large in the eyes of the newly organised. But the dangers of "the complete control" now claimed by the National Union of Teachers, would be even greater than in the Law or Medicine. We must be for ever on the watch to find gaps in our educational system, for ever on the alert for new discoveries and new methods, if our social heritage is to be improved. But teachers are as hostile to change as any other body of workers, and Mr. Graham Wallas is convinced that if change can only take place on the initiative of the majority of a body of professional teachers, it will not take place at all. Moreover the knowledge which the teacher hands down, is in the main the creation of others. The funds by means of which the profession carries on are supplied by taxation or endowments. The claim to complete control by members of the profession is therefore unjustifiable. It is essential in all vocations which have acquired social power, that the State should keep control of the internal vocational organisation, and in particular of the franchise regulations under which elections and referenda within the vocation take place. But this is precisely what the Guild Socialist, who, according to Mr. Graham Wallas, never allows sufficient weight to the historical fact of the failure of the medieval guild organisation, would be the last to concede.

While we have not yet evolved a satisfactory basis for our national life, we have not even made a beginning with inter-

national questions. Yet world co-operation is inevitable, if we would continue to exist in our present numbers. At the time of writing Mr. Graham Wallas was inclined to believe that the League of Nations would not long survive. If, however, it continues to exist, he thinks that "it may help in the invention of expedients and habits which will be useful if ever mankind come to desire a more effective organ of world co-operation."

There is a note of hope in the view that what the human mind has contrived, the human mind can alter. The statement is made with regard to that "almost insoluble problem of democracy"—the Press. But it indicates in a sentence the main lesson which this volume is intended to convey. By close, intelligent study of all conditions, including the psychological study of the character and impulses of men, by the application of reason and goodwill, and, above all, by means of serious intellectual effort, we may yet save civilisation, and hand on our social heritage. But the effort must be made, and no existing institution, neither the professions nor the politicians nor the scientists nor the Churches, has yet shown us how to make it.

H. REYNARD

A Treatise on Probability. By J. M. KEYNES. (Macmillan. Pp. 466. Price 18*s*. net.)

"THE terms certain and probable denote the various degrees of rational belief about a proposition which different amounts of knowledge authorise us to entertain" (p. 3). Thus, probability is an objective relation between one proposition or set of propositions and another set, and any statement that something is probable in a general way without reference to the evidence is elliptical. New evidence cannot alter any probability relation; it provides the basis for a *different* probability relation between the conclusion and the different data. Moreover, the fact that a conclusion "turns out to be wrong" is no evidence that, on the data available when it was formed, our judgment of probability was mistaken. This is the broad foundation upon which Mr. Keynes' very interesting and important work is built. Upon it one criticism, which does not affect the value of the superstructure, may be suggested. In identifying probability with the degree of belief which it is rational for us to entertain, the author is faced by a difficulty. Different people's logical powers are different, and it seems paradoxical to speak of its being rational for me to perceive something, which, from the constitu-

tion of my mind, it is impossible for me to perceive (p. 32). Would it not be better to say that there *is* a probability relation between proposition a and proposition h, whether or not my mind, or anybody else's, is such that it is rational for us to see it; and that though, of course, we can only *know* that the relation is there when we do see it, yet the fact of its being there and the fact of its being rational for us to see it are not one thing, but two?

It has been widely held, at least implicitly, that all probability relations are numerical, different relations containing, as it were, different numbers of units of probability. If this were so it would, of course, always be possible, as between any two known probabilities, to say, not merely that one is greater than the other, but also that it is so many times greater. Mr. Keynes argues with great force that many probabilities are not numerical at all. Two points are distinguished here. First, some probabilities can be placed in an order of magnitude without its being possible to *measure* the difference between them. On evidence h, a may be more probable than b, just as one shade of colour may be more like than another to a given shade, though it is not twice, or any other number of times, as like. The confusion of thought that is here unearthed is a very common one: for many people suppose that if one thing is prior in order of magnitude to another, the difference between them *must* be numerically measurable. I have seen it stated, for example, that a certain passage in the Alps is "25 per cent. more difficult than the Mummery crack on the Grépon"—a statement which reflection shows can have no meaning at all. Mr. Keynes' second point is subtler. It is that, though certain probabilities can be arranged in an order of magnitude, so that we may say "this probability is greater than that," others cannot. The probability of a on evidence h is always greater than, equal to or less than, the probability of a on evidence hh_1, and the same thing is true as between the probability of a on evidence h and the probability of ab on evidence h; but there need not be any such relation between the probability of a on evidence h and that of b on evidence k. Mr. Keynes illustrates his view on this point by means of an ingenious diagram (p. 39).

To ascertain the nature and the degree of the probability relation between any proposition or set of propositions and another set we must depend either on *seeing* it as a whole or on seeing separate parts of it and combining what is seen in accordance with logical rules. Thus, just as in mathematics,

analysis may make the task of intuition easier, but no analysis can dispense with it: and, just as in mathematics again, where a genius may safely jump the steps to a recondite conclusion, an ordinary man does best to take them one by one. An excellent example of this is furnished by the history of "the principle of non-sufficient reason," or, as Mr. Keynes prefers to call it, the "principle of indifference." When, at first glance, we seem to have no preponderant reason either for affirming some proposition or for denying it, in what conditions are we justified in asserting that, on the evidence available, the probability of the proposition is one-half? Is it equally likely, prior to any study of the details, that a coin tossed in the air will or will not fall heads; that the world is or is not the product of "design"; that the elasticity of the demand for a commodity about which we know nothing is or is not greater than unity: and so on? Mr. Keynes exhibits numerous paradoxes to which an uncritical use of the principle of indifference has led important writers and brings into light certain classes of relevant considerations that are in danger of being overlooked.

After having, in Part I of his book, elucidated the general notion of probability and the ultimate dependence of judgments of probability and of the relevance of evidence upon perception, Mr. Keynes proceeds in Part II to construct a symbolic logic of probable inference, by which the unwary may guard themselves against fallacy in attacking complicated problems where a number of elementary intuitions have to be combined. The most important part of this development is concerned with "independence for knowledge." Writing a/h for the probability of a on evidence h and ab/h for the probability of both a and b on evidence h, we have $ab/h = a/h \times b/ah$. This is equal to $a/h \times b/h$ if, and only if, the truth of a is irrelevant to the probability b. This requirement is *not* equivalent to the requirement that there shall be no direct causal connection between a and b. Thus, though the occurrence of a head at the first toss of a penny can, in no sense, be a cause of the occurrence of a head at the second toss, nevertheless, by modifying the evidence, it makes the probability of a head at the second toss different from the probability of a head at the first toss. "For the purposes of probability two facts are only independent if the existence of one is no *indication* of anything which might be a part cause of the other" (p. 165). This consideration, as Mr. Keynes shows, narrows very stringently the range over which Bernouilli's theorems may be legitimately applied. It forbids us, for example,

to argue, except under very special conditions, that, if on evidence h the probability of a given event occurring once is p, the probability of its occurring n times is p^n.

The most important types of argument dealing with probability are those which are based on the methods of induction and analogy. "In an inductive argument [in the wider sense which includes analogy] we start with a number of instances similar in some respects A B, dissimilar in others C. We pick out one or more respects A in which the instances are similar, we argue that some of the other respects B in which they are also similar are likely [either always, as in universal induction, or generally, as in inductive correlation,] to be associated with the characteristics A in other unnamed cases. The more comprehensive the essential characteristics A, the greater the variety amongst the non-essential characteristics C, and the less comprehensive the characteristics B which we seek to associate with A, the stronger is the likelihood or probability of the generalisation we seek to establish" (pp. 219–20). A mere addition to the number of instances in which A and B have gone together strengthens the argument, because, though there is no certainty that any of the new instances of association are linked with new circumstances, there is a chance, which is greater the greater the number of the new instances, that some of them are.

This sort of reasoning is embodied in an enormous number of actual scientific arguments. It must also be embodied, Mr. Keynes contends, in valid inferences from statistical correlations. Ultimately the step from observed to unobserved correlations between series is the same as that from observed to unobserved individual connections. "If B has invariably accompanied A in a hundred cases, we have all kinds of difficulties about the exact character of our evidence before we can found on this experience a valid generalisation. If B has accompanied A, not invariably, but only 50 times in the 100 cases, clearly we have just the same kind of difficulties to face, and more too, before we can announce a valid correlation" (p. 390). These difficulties can be partly overcome, on the lines of normal inductive processes, by "breaking up the statistical series, according to appropriate principles, into a number of sub-series, with a view to analysing and measuring, not merely the frequency of the given character over the aggregate series, but the *stability* of its frequency amongst the sub-series; that is to say, the series as a whole is divided up by some principle of classification into a

set of sub-series, and the *fluctuation* of the statistical frequency under examination between the various sub-series is then examined" (p. 392). Mr. Keynes develops this method in a very interesting way upon lines laid down by Lexis.

There remains the fundamental problem. It will be readily agreed that, as we come to know more and more respects in which B resembles A, whether B and A be individuals or series, the more probable it becomes, relatively to our knowledge, that B also resembles A in some, or all, other unexamined respects; and, in like manner, as we come to know more and more instances in which quality *b* is associated with quality *a*, the more probable it becomes that the two qualities are associated in some, or all, unexamined instances. But, in order that the reliance we do in fact place on arguments from induction and analogy may be justified, we require more than this. The probability of our inferences must not merely grow as favourable instances grow; these inferences, if they do not approximate to "practical certainty," must become at least substantially more likely than not. Mr. Keynes shows that this can only happen if, apart from the instances, there is some appreciable *initial* probability in favour of the inference which they tend to support. Sometimes we can see no such initial probability. We can see no initial probability, for example, that the name William is associated with blindness at 40; and, consequently, no amount of *a posteriori* evidence could create an appreciable final probability that unexamined Williams will meet with this misfortune more often than unexamined Johns. *Per contra* we *can* see an initial probability that men blind at 40 will also be blind at 41: and, in this case, *a posteriori* evidence will soon carry the final probability near to certainty. To justify the methods of induction and analogy as employed in the general body of science, we seem to require some finite probability (however small), obtained otherwise than by these methods, that, if A and B resemble one another in one respect X, they will also resemble one another in another respect Y, and that, if two qualities *a* and *b* are found together in one instance they will also be found together in the next. Mr. Keynes shows, in an original chapter, that the required probability would follow if we suppose the physical universe to constitute a system of which the *independent variety*, in a sense that he carefully explains, is finite. This supposition he calls the *inductive hypothesis*. It stands, he writes, "in a peculiar position, in that it seems to be neither a self-evident logical axiom nor an object of direct acquaintance; and yet it is just

as difficult, as though the inductive hypothesis were either of these, to remove from the organon of thought the inductive method, which can only be based on it or on something like it" (p. 364).

These ultimate speculations, going, as they do, to the root of the theory of knowledge, are not suitable for discussion in the pages of this JOURNAL. It is not, however, merely the fact that Mr. Keynes is a distinguished economist that warrants a review of his work here. For, though the philosophy of probability lies outside their field, students of economics have, perforce, to make frequent use of probable inference. This is so even in pure theory, when we lay it down, for example, that curves of demand and supply are likely to be continuous; when we assume, as we must do in certain problems of taxation, some definite relation between the elasticity of demand at a point, taken as known, and the elasticity at neighbouring points; or when we recognise, with Professor Edgworth, that certain problems of monopoly have a less secure solution than others, because, to treat them successfully, it is necessary to know the sign, not merely of the first, but also of the second, differential of the price-quantity function. In practical work, when we are endeavouring to disentangle causes and to foresee effects, particularly if statistical correlations form a part of our material, we are grappling even more directly with particular instances of the class of problems of which Mr. Keynes is seeking a general view. A study of that general view may be of high value in our narrower researches. For the problems which Mr. Keynes has touched he has not only illuminated with a marvellous lucidity of style, but has also substantially advanced. Economists will recognise with pride what one of their number has accomplished in another field, and will look forward with added zest to his next essay in their own.

A. C. PIGOU

The Taxation of Excess Profits in Great Britain; A study of the British Excess Profits Duty in relation to the problem of Excess Profits Taxation in the United States. A Report prepared for the Committee on War Finance of the American Economic Association by ROBERT MURRAY HAIG, Ph.D., assisted by GEORGE E. HOLMES of the New York Bar.

IN the spring of 1919 Dr. Haig was delegated by the War Finance Committee of the American Economic Association to

conduct an investigation into the Excess Profits Duty in this country, and to inquire particularly, first, into the way in which certain problems which had caused difficulty and dissatisfaction in America had been dealt with in British law and practice; secondly, into any points in which our administrative schemes might suggest improvements in their own; and thirdly, into the views of economists, officials and business men upon the economic effects of the special profits tax and its suitability for a permanent place in the revenue scheme. In the report which resulted from this investigation we have mainly an account of those aspects of our system which were likely to be of value to American students and financiers; but, at the same time, Dr. Haig has dealt with many matters of permanent and general interest. He had unrivalled opportunities for obtaining first-hand information, and the list of people with whom he came into contact is an imposing one. It is not surprising that a number of points are touched upon in his work, particularly in regard to inner political or historical facts, which cannot be found elsewhere. Upon the technical parallel drawn between the two systems it will suffice to say here that the work is exceedingly well done, the most difficult problems being handled with proportion and accuracy. Upon the second matter, relating to administrative efficiency, he has virtually nothing but the highest praise for us. He is impressed by the high degree of authority and responsibility given to our local officers, and the measure of trust that exists between them and the public. There could scarcely be a greater contrast than that afforded by the attitude of the British administration and that of the ordinary local Collector of Internal Revenue in the United States, and much of the dissatisfaction with direct taxation, which unquestionably exists in America, is traceable to strict, petty stickling over minor inconsequential details. Dr. Haig realises that such wide decentralisation of delicate and involved duties was only made possible by a long-established and highly developed Civil Service, and that therefore the United States has no prospect of immediately following suit.

For readers of this JOURNAL the section dealing with fiscal and economic consequences will probably be the most interesting. Dr. Haig spared no pains to compare the actual impressions of officials and business men with the results of general abstract reasoning. It is agreed that in some instances the liability to duty was taken into account when arriving at prices under Government contracts, so that the Government had to pay more for its supplies than it would have done if there had been no

duty, but after 1917 a closer control of conditions reduced this element to unimportance. The extent to which the Government were made "to pay their own taxes" cannot be even approximately estimated, but with such urgent demand, with an unlimited vote of credit, and with all suppliers engaged in full production, it must have been appreciable. As might be expected, the most diverse views were expressed as to the effect of the duty upon general prices; some merchants thought it had no effect in raising them, while others thought it all-important. The economist's view that such a tax could not operate to increase competitive prices, and must also come out of all monopoly profits, found little support in the daily press, which blamed the duty very largely for prevailing high prices. Dr. Haig is probably near the truth when he surmises that the existence of the duty led to a speedier approach to a potentially higher price—"one suspects the tax has been seized upon as an excuse for monopoly prices which would be just as high in the absence of the duty."

Dr. Haig refers to one manufacturer who told him that when his concern found itself, after a number of lean years, in possession of a large stock, and confronted by a demand so immense that it was in a position to ask almost any price, the fact that the duty had to be paid influenced the directors to charge a higher price than they otherwise would have asked, and he comments: "such tender-hearted tyros at profiteering, who depend on the tax to give them moral courage to charge what they can get for their goods in the market, are probably rare economic phenomena and, moreover, unless they happen to be selling directly to the consumer, anything they refrain from adding to their price is probably added to it by the next man in the marketing chain, so that the ultimate retail price is no lower."

Although agreeing with accepted views as to the incidence of a tax on a margin, Dr. Haig thinks that there may be long-period indirect effects in the direction of increased prices from a business tax of this kind. Such effects would arise from "laxity in management and extravagance." He might, with advantage, have been more expansive on the connection or distinction between what may be called the static incidence of the tax with a given flow of commodities and given state of production, and the ultimate effects set up by reactions through the interior mechanism of the tax. In substance, it amounted to a partnership between the Government and the taxpayer for a limited period, where the taxpayer, at small expense to himself, could call the tune with regard to expenditure of two kinds. First we have that expendi-

ture which would react on the business in future years, and give the taxpayer the undiminished benefit later on, such as large outlay on advertising and thorough overhauling of buildings with renewals and repairs. It is true there were physical limitations here, but it was worth the taxpayer's while to get the work done even at a much higher price, since only some 20 per cent. of it fell upon himself. If it had all fallen to be borne by himself it might have been postponed indefinitely, and therefore, to some extent, the duty forced production into channels that might suitably have been delayed till after the war, and in *pro tanto* starving the supply of essential objects, increased their price. Excessive expenditure upon advertising, though building up a future goodwill for the *particular* business, may not have had any beneficial effects on industry as a whole, either then or now, except so far as such advertising was strictly truthful, and brought to the front the goods most worthy of recognition by the public. To some extent it forced production into least advantageous channels at critical times, but it may have enabled essential news services to continue which would otherwise have gone under, so that it possibly indirectly cheapened other products. The second class of expenditure includes extravagance or persistence in wasteful and careless methods: unless, however, these methods also obtained amongst "non-E.P.D." payers producing "at the margin," they would not appear to have influenced price, but only to have depleted a certain range of individual profits. In so far as the more prosperous concerns are pioneers in improvements which get generally adopted, and in so far as they "set the pace," the negative action of E.P.D. in discouraging such concerns from seeking the best methods would also have retarded the general lowering of costs, including those of the marginal concerns, and so have maintained prices unnecessarily. The deflection of a part of economic profit away from the profit-maker and the Government to the wage-earners of a particular business, doubtless also has set a pace for that industry as a whole, and therefore, for all industries indirectly, and increased costs at the margin to some extent. The purchasing power of the Government and the profit-maker was reduced, and that of the wage-earner increased by a like sum, but as the Government had to secure the goods, anything it failed to get by taxation and direct loans had to be obtained by inflation, which therefore raised prices, except to the extent that the wage-earner put the extra receipts in question into War Loan, and refrained from spending them.

It must be remembered that the economic importance of

"non-E.P.D." concerns in their effect upon the incidence of the tax, gradually got less as general inflation brought more and more of them—even with restricted trade—above their fixed pre-war standards of profit. There is doubtless much truth in Dr. Haig's summary of the effects of "discouragement": "The British business men allege that their duty tends to sanctify the traditional profits of well-established concerns, rendering them immune from competition, and that it tends to discriminate against young and growing businesses. They claim that it places a penalty on aggressiveness and ability and a bounty on conservatism." But, as he rightly points out, it does not lie with those who must use the "repression" argument to urge so vehemently that any tax that is paid is passed on to the consumer in higher prices than would otherwise have existed.

The economic effects on prices in the long run, of such interference with the normal course as the conserving of wasting assets, such as minerals, or the postponement of rubber tapping until the E.P.D. should have passed away, and the results of depleting funds that would have been available for expansion and development, it is too early even yet to appraise; and therefore Dr. Haig's reasoned opinions of 1920 may have to be materially supplemented before a complete picture can be drawn. Meanwhile, the extension of the duty virtually to August 1921, with the great liabilities it is throwing upon the Exchequer, seems likely to turn this scheme of taxation in many instances into the most complicated arrangement ever devised for borrowing money for five years without paying interest on it.

J. C. Stamp

The English Capital Market. By F. Lavington. (London: Methuen & Co. 1921. Pp. 297. Price 18s.)

This careful exposition of the relation of the Money Market to the industrial system will undoubtedly appeal to students of economic theory. The writer has been well disciplined in a rigorous school of analytic subtlety. But to the average City man, a book on the "English Capital Market," which barely recognises the changes of the past six years, but deals with the Quantity Theory (developing Dr. Marshall's evidence before the Royal Commission of 1888); which pays hardly any attention to the position of London as a centre of international finance, but discusses Uncertainty Bearing and Insecurity in the style of Professor Pigou—such a book cannot fail to seem rather

academic. Yet the broker and the jobber, if they could manage to read it, would no doubt be delighted, perhaps surprised, to learn that the payment they exact from society is, after all, not out of proportion to the services they render: that, in fact, they do make a net contribution to economic welfare.

Mr. Lavington's purpose is to bring out the significance of the Money Market as a coherent part of the organisation of production, and to consider the payment it obtains for its services. He regards as part of the Money Market not only the work of the banks, bill brokers, etc., but also the system of Trade Credit, the work of Building Societies, and even of the solicitor who arranges for the loan of capital on mortgage.

To those who seek an alternative to the present constitution of society, the purpose of this book might seem rather limited. They might admit that the Banks supply the means of effecting payments in the form of a cheque currency of unrivalled efficiency; that the Banks and the Issue Houses collect capital from points of plenty and carry it to points of scarcity; that the system of Trade Credit lowers the supply price of capital to many business men who would, in its absence, find it difficult to obtain supplies elsewhere; that the market for new securities formulates the social need for capital into an effective market demand; that (like the Banks) by adding together innumerable short lengths and small quantities of capital, it supplies business ability with the resources which make it effective; that the market for old securities, by its facilities for rapid exchange of securities, enables the burden of Waiting and Risk bearing to be continuously shifted from one capitalist to another, as his particular circumstances demand; that the increase of saving and investment effected by these agencies reacts on the supply of capital, lowering its costs of production, and consequently its supply price; that, on the whole, competition adequately protects the investor or consumer from all but his own ignorance or inclination. All this they might admit, but they would feel that Mr. Lavington is merely justifying the product of a system which itself requires justification.

It must not be imagined, however, that there is anything of special pleading in Mr. Lavington's work. The inquiry is conducted throughout in a severely scientific spirit. Mr. Lavington is fully aware that the "invisible hand" is not always able to guide the activities of the Money Market to the social advantage. The social effects of the negotiable security are not wholly desirable. In the work of the market

for new securities there is too little harmony between private and social interest. In the flotation of undertakings on the public market there is need for some intermediate marketing organisation to be responsible for these issues. Mr. Lavington has a chapter on various devices for protecting the public from the wiles of the company promoter. It is interesting to learn that the company law of this country is (to quote Professor Foxwell) "less exacting in its safeguards than that of any other great business community except, perhaps, the state of New Jersey."

With regard to the distribution of capital, modern banking developments would seem to produce a certain degree of rigidity. Certain classes, very capable of using capital well, tend to be excluded from its use.

The active regulation of variations in the purchasing power of sterling is of the highest social importance. Yet against temporary causes tending to disturb its home value, the market fails to react effectively. There is the difficulty of measuring, at any rate in practice, the true social need for currency. There is the almost uncontrolled influence of Trade credit. There is the absence of common action on the part of the Joint Stock Banks to control the supply of money.

It is interesting to note that the market for new securities plays a smaller part than would be generally supposed in facilitating the movement of the annual flow of free capital into home investment. The explanation, Mr. Lavington thinks, lies in the fact that the most common form of limited liability organisation is not the Public, but the Private Joint Stock company. The vast majority of joint stock companies coming into being each year are thus already in possession of capital. But the consolidation and extension of industrial concerns due to the war, and their growing practice of re-investing large portions of their accumulated profits in their own business, are likely—though for the present the tendency is obscured—still more to narrow the scope of the Market's services. Further, it is possible that there will be not only a narrowing of the scope, but also a reaction upon the nature of these services. Given the domination of industry by a comparatively few large concerns, and the shrinkage of the stream of free capital available for investment, shall we be able to say that one of the chief services of the Money Market is its bringing together the appropriate business ability and the requisite capital, and making possible the separate production of each?

A review of this kind must necessarily omit many of the topics which Mr. Lavington handles—and he seldom handles a topic without appearing to set it in a new light—but attention may be directed to his remarks on the value of organised speculation and on the significance of the marketability of securities.

Mr. Lavington offers us, not indeed a vivid description—for that we must turn to Mr. Withers—but a calm and judicial interpretation of the Money Market from the point of view of the theoretical economist. Quite apart from its clear exposition of leading principles, this scholarly book is worth reading, if only for the quality of its *obiter dicta* and the suggestiveness of its subsidiary discussions.

J. LEMBERGER

Foreign Exchange, Before, During and After the War. By T. E. GREGORY, B.Sc. (Oxford University Press. Pp. 116. Price 2*s*. 6*d*.)

THE writer of this book has, from the circumstances of the times, one advantage over pre-war writers on exchange, in the fact that there is now so much more experience of fluctuations on a large scale, that the subject is much more alive than was the case before the war. One drawback is found, however, in the tendency produced by present conditions to treat the pre-war situation, with its almost universal gold-standard currencies, as a state of things rather easily described as one in which money was readily made to have the same purchasing power by the prompt effect of very slight fluctuations in exchange. On page 82, for instance, with respect to a group of countries all in touch with one another it is said that "there will tend to be established a uniform price-level, or, what is the same thing, the value of money in all the different places will tend to be the same." It may well be objected that this overlooks the important fact that owing to various conditions it was the normal thing before the war that money would buy a good deal more in some countries than in others—more in Belgium, for instance, than in the United States. It is submitted that the meaning of "purchasing power parity" under the conditions of a universal gold standard requires more analysis than has been given to it by writers of the school to which the author, in his preface, pronounces his adherence. Such analysis, it is suggested, would show that there is something in what Miss Van Dorp and other critics are trying to get at,

even though they may have failed to make their position clear. It is not sufficient merely to attack the use of expressions such as that the exchanges are dislocated owing to "an excess of imports over exports," which are necessarily too brief to express the whole truth. The author's criticism of argument of this kind is good, as far as it goes, but it does not appear to get quite to the bottom of the question.

The main thesis is that exchanges are dislocated because of the multiplication of paper money and its continued emission by many Governments. Few, if any, economists would deny that this is the substantial factor in bringing about the present situation, and that all attempts to prevent continuance of the fall in the value of marks, etc., must be substantially unsuccessful so long as their volume is continually augmented. The author appears, however, to go rather too far in denying the usefulness, to a limited extent, of some of the devices for checking the fall in exchanges. The restriction of luxury imports, for instance, is quite defensible on reasonable grounds, as having almost inevitably, if not quite inevitably, a tendency to improve the value of the money of the country making the restriction, and similarly the prohibition of export of capital, in so far as it is really feasible. With reference to attempts to charge higher prices to foreigners, by means presumably of Government assisted discrimination between domestic and foreign sales, it is not essential, for the obtaining of some success, that the article in question should be monopolised by the exporting country, or that the demand should be inelastic.

On the subject of the discrepancies between the "required" values of pounds, francs, etc., in terms of dollars as judged by index numbers and prices, and the actual values in the exchange market, the author appears to admit only one explanation, the tendency to anticipate future over-issues or mistakenly to calculate upon a future improvement. These anticipations must, no doubt, be factors of considerable importance, but is it not worth while considering whether the "balance of trade" theory may not have something in it also?

The book contains a number of statistical tables which will be found useful for reference.

C. F. BICKERDIKE

Foreign Exchange and Foreign Bills in Theory and Practice. By W. F. SPALDING. (Sir Isaac Pitman & Sons. Pp. 246. Price 7*s.* 6*d.*)

THIS is the fourth edition of a work first published in August 1915. It is natural, therefore, that it is largely concerned with the pre-war exchanges, before there was the multiplicity of inconvertible paper currencies, but as successive editions have been made there have been additions dealing with developments up to date. In the main, however, it may be said that the state of things dealt with is that of the pre-war exchanges, and the reader may feel that he would like to have further information as to the extent to which the present state of things has modified the practical machinery of various kinds which is described in considerable detail. Doubtless much remains substantially unchanged, even though sterling no longer means gold, but at least sections such as Chapter VIII., on "Bank Rate and Market Rate of Discount in Connection with the Fluctuations in the Foreign Exchanges," can hardly be regarded as adequate for present-day requirements, even when read in conjunction with the additional chapters which have been inserted from time to time dealing with the war and paper money.

The book is written for the use of those who are engaged, or likely to be engaged, in business transactions, and is descriptive of the machinery of financing international transactions rather than with economic theory. Chapter XII., for instance, on the Gold Exchange systems as formerly operated in India and other countries, gives only an elementary sketch of the system, but more could hardly be expected, perhaps, having regard to the purpose of the book. What the reader will find mainly dealt with in the book is the description of various kinds of credit instruments in use in connection with trade between this country and many different parts of the world, what is done with the documents by the various parties, and how the interests of the lenders of credit are safeguarded.

Even the island of Cyprus has a short chapter explaining its monetary system. An interesting short chapter is that dealing with the Scandinavian countries during the war and the breakdown of the pre-war arrangements for maintaining an invariable par of exchange between Norway, Sweden and Denmark. Would it not be, however, rather more correct to put the policy of the Bank of Sweden in maintaining a comparatively high discount rate as a point of fundamental importance, rather than to refer

to it merely as one other factor to be noted? Sweden, in fact, took more effective steps to prevent inflation, and, in consequence, her currency secured a relatively higher value, the higher discount rate being a most essential part of the policy.

May we hope that the author will find opportunity to bring out a book written specifically for the new conditions of the world? Students of economics, as well as business men, would welcome further light on such questions as whether deliberate manipulation of paper money exchanges is practised extensively, and if so, by whom, and also as to whether the variations in exchange really do involve very heavy risks to the banks. It is explained in Chapter XIV. how the trader avoids the risks by shifting them on to the banks. Are we to infer, contrary to what is stated in some other places, that the trader himself can always avoid these risks? Then with regard to the banks, the implication seems to be (pp. 151 and 152) that they can usually arrange, by having transactions both ways, to reduce their risks in the case of forward contracts to comparatively small dimensions. If this is the case, it is important in considering the question whether paper money is really as bad as it appears at first sight. The author appears to share the traditional attitude of strong condemnation of inconvertible paper money, but this chapter rather suggests that it is not, in practice, so bad as he would have us believe. In view of the probable long continuance of inconvertible paper monies in many important countries, it is to be hoped that more light may be thrown on these questions.

Another matter which appears to be likely to deserve fuller treatment is the Trust Receipt. The law on the subject appears to be doubtful in this country, but is it not one of those things which will have to be worked out somehow? Is it the rest of the world that should learn from us or the other way about? Some further light on the reasons for the evolution of this system in the United States and elsewhere would be of interest from the point of view of business men and lawyers. The author may at all events be commended for giving at least some attention to the subject.

C. F. BICKERDIKE

The Functions of Money. By WILLIAM F. SPALDING. (Sir Isaac Pitman & Sons, Ltd.)

WE must be grateful to Mr. Spalding for giving us a convenient, readable, and, in the main, accurate summary of the

theories concerning money which are most extensively held to-day. If he has not illumined the dark spots nor added materially to our knowledge, we must not complain. Within the compass of so small a work it would be impossible to do so, even if, which is doubtful, the present state of our knowledge admitted it.

It is inevitable that any work on the nature of money should begin by re-stating Adam Smith's position. It has become so axiomatic that early man lived by barter, and the subsequent clumsy attempts to find a suitable commodity to serve as a "medium" between any two other commodities form such obvious steps towards the ultimately more perfect state in which everybody mysteriously agreed to accept gold and silver in exchange for all commodities, that it may seem hardly worth while to investigate further. It must have been so; therefore, it was so.

Yet it can hardly be amiss to realise how slender is the foundation on which Adam Smith's statements (far more cautious than subsequent works would lead one to think) rest. His fourth chapter is but a very minor part of his work. He was not, and could hardly have been, an original investigator in the field of early human civilisations. There was not then the material on which to build. There is little enough even now, many though the workers.

If man ever did live by barter, it was in a period so remote that we have no knowledge of it, and from that of which we have no knowledge we can infer nothing. There is no period, however ancient, of which records exist, in which buying and selling did not go on as to-day. There is no known race of which it can be affirmed that they deal or have ever dealt among themselves exclusively, or even mainly, by barter—for barter and money in some one of its many forms, visible or invisible (money, strange as it may sound, may be and often is invisible), may co-exist. The casual observations of travellers in the interior of Africa or the Highlands of Asia or among the Cannibal Islanders do not suffice to convince. They were impelled by the love of adventure, or of God or Mammon; never, that I know of, by a thirst for knowledge of the mechanism of finance among the aborigines—a task for which few if any travellers are well equipped.

And then, when we come to the supposed "media," are we really justified in concluding from a passage or two in Homer (a poet, I believe, not an expert in commerce) about the value

of the armour of Diomede or Glaucus that the Greeks of those days referred all their values to some "standard" ox? And can we infer from a few passages in the Bible about shekels and pieces of silver what the commercial machinery of the Jews was? Even if these passages were correctly translated, which according to the latest authority they are not, the written record, as we have it, is centuries later than the transactions to which it refers—about fifteen hundred years later in the case of Abraham's purchase of the field of Machpelah.

As to the modern examples of commodities used as money—tobacco, sugar, dried cod, nails, and so forth, the last two examples are endowed with a more than cat-like vitality, having been torn to bits about a hundred years ago by writers who knew the simple explanation, as Adam Smith did not. And the other examples are of no more value. Money was as well known and in as general use in our colonies in the seventeenth and eighteenth centuries as it is with us to-day.

In the chapter on the much-debated Quantity Theory, attention must be called to at least one surprising statement. The author says that "the value of money not only varies inversely with its quantity, but also inversely with its velocity of circulation"—a mathematical impossibility, by the way—and he goes on to say that "in stating this we are not creating an abstruse problem, for the velocity of circulation is easily ascertainable (and here he quotes Professor Fisher) by dividing the total money payments for goods in the course of a year by the average amount of money in circulation by which those payments are effected." We are accustomed to Professor Fisher's breezy way of disposing of difficult problems, but to say that it is easy to divide the total money payments by the amount of money in circulation makes the reader gasp. In fact, the Quantity Theory can neither be proved nor disproved by direct evidence, because it is impossible to know either of these factors.

Perhaps the weakest chapter in the book is that entitled "Some Historical Facts," few of which can with certainty be regarded as facts at all. There is, for example, no serious evidence of the use of gold or silver as the medium of exchange in early Egypt or Babylonia. The Chinese *tael* is not a weight of silver. There are, as the author himself says later, innumerable *taels*, the exchange values of which constantly vary, and some of them have altered considerably in value in the course of time. The statement that the stamp on Greek coins guaranteed their weight and fineness is in contradiction with the opinion

expressed by Barclay Head in the latest edition of his work. Nor can it be said that "the Greeks had a definite manner of reckoning the proportion of gold to silver and the more common ratio was 10 : 1." On the contrary, the various attempts to find out their relative values have met with little success, and there is a good deal of disagreement between the various writers. Nor are we justified in stating as a fact the fanciful theory that King Croesus introduced bi-metallism. The statement that the Roman As coins date from 450 B.C. is not now held to be correct. Though the As is believed to have been in use as a money-unit at that time, the best opinion seems to be that the earliest coins are a century later. And there is no evidence of any value that the coins originally weighed a Roman pound. They were from the outset extremely variable.

The nineteen pages of the chapter on "The Principal Monetary Systems," are rather a short allowance for so big a subject, but are useful as an introduction to the study of it. The last chapter, "Money in International Commerce," is, as might be expected, altogether admirable. It gives, in the shortest possible space, a wonderfully clear idea of how international commerce is carried on. But both these chapters would have been more useful to the student had the author appended a list of works in which the subjects might be pursued in more detail.

A. M. INNES

The History of the Woollen and Worsted Industries. By E. LIPSON. (London: A. and C. Black. 1921. Pp. x + 273.)

THIS is the first of a series of Histories of British Industries, of which Mr. Lipson is General Editor. It has been "designed to meet the needs of Training Colleges, Continuation Schools, Workers' Tutorial Classes, and all similar institutions." It is, therefore, written without footnote apparatus, but with a bibliography, a bibliography which shows the learning that one would expect from its author. Besides the results of his own research, Mr. Lipson has had the advantage of Professor Heaton's remarkable *History of the Yorkshire Woollen and Worsted Industries.* He has adopted, so far as possible, the method of letting contemporaries tell their own tale, with excellent results. Although not writing primarily for scholars, he has put them under an obligation to him in many places. There is, for example, an account of wool smuggling (pp. 88 *sqq.*) under the export prohibition system of the seventeenth and eighteenth centuries, both illuminating

and amusing. So far as I can remember, the explanation (p. 180) that the workmen's opposition to machinery was partly based on a belief that the stock of wool was fixed—as in fact it very nearly was, before Australia developed—and that therefore machinery must mean both immediate and ultimate unemployment, has not been put forward before; it has certainly not been put forward so clearly.

A few technical and a few general criticisms suggest themselves. Probably it was to avoid burdening his unlearned readers with controversy that Mr. Lipson (p. 28) allowed himself to give the impression that masters, journeymen, and 'prentices were all "members" of a craft-gild in the same sense. He does once speak of the "inner circle" of the gild; but he nowhere states that masters made all the rules. "The aim of the gild system was, in short, to establish as nearly as possible a condition of absolute equality [among masters]; and the gild ordinances seem inspired almost by a spirit of communism." The words in brackets are the reviewer's. The evidence of "communism" is that if one master among the London Shearmen had three journeymen, and another had none, the man with none might take one from his neighbour. That is what I should call "jealous egalitarianism" among masters. I cannot think that the taken journeyman was conscious of much "communism" in the system. But I fear that the unlearned reader, probably familiar with Gild Socialist distortions of medieval history, may go away with the impression that there was really something "communistic" about a gild.

Is the sweeping statement that "the fuller bought the cloth raw and sold it fulled" generally true? Mr. Lipson gives evidence for the fact from a statute of 1391, and other evidence is, of course, available. But commission fulling, or fulling at manorial mills for a fee, began very early and may have been, so to speak, primitive.

Coming to the inventions (p. 142), Mr. Lipson says that all except the fly-shuttle and the combing machine "were first intended for the cotton industry"; but explains a few pages later that Paul and Wyatt's spinning machine was first used for wool. He quotes several lines from Dyer's "Fleece" about it. And in a footnote he admits that Paul's carding machine is also perhaps an exception. This leaves few for the rule.

On p. 174 that mysterious word of the wool technologist "loftiness," as denoting a character of wool, is used without explanation. But all these are small matters.

Three criticisms of the general structure of the book in relation to its purpose have more weight. The first, and slightest, is that the significance of the widespread and unregulated "household industry" of the Middle Ages is perhaps underrated. When we talk of industry "spreading" to the country, I am inclined to think that often we are pointing to the fact that in a certain district "household" became "market" weavers. Probably Mr. Lipson agrees, as some words on p. 223 suggest. But I should like to have seen the gilds pictured as working against this dim domestic background.

Secondly, the book almost completely neglects all history since 1850, except for a few figures from the industrial census and a reference of readers to a book by Dr. Clapham. I cannot but think that, for the purposes of the series, this is a very grave omission. The introduction of cotton warps, of alpaca and of mohair, the whole shoddy industry and the whole of nineteenth-century trade unionism get into a twelve-line footnote! The industries in 1850 were almost as different from those of 1920 as they were from those of 1800. In 1850 the Woollen Clothiers' Company Mills were in full swing; the mule was far from universal in woollen spinning; very many important woollen businesses used hand-looms only; Leeds was a centre of broadcloth manufacture; and the industrial atmosphere was not really "modern." Upon economic, more perhaps than upon any other class of historians, is laid the duty of bridging the blind spot between fully written history, which always stops a generation or two short of actuality, and the world of to-day. The bridge is not made here.

Thirdly, which is probably the explanation of "secondly," nowhere in the book can one catch the beat of the looms or sniff the rank smell of the wool-washing troughs. Perhaps it is a literary accident; but the text certainly suggests a knowledge of the world of to-day based more on reading about it than on looking at it.

J. H. Clapham

The Yorkshire Woollen and Worsted Industries from the Earliest Times up to the Industrial Revolution. By H. Heaton. (Vol. X of the *Oxford Historical Literary Studies*, edited by C. H. Firth and W. Raleigh.) (Oxford: Clarendon Press 1920. Pp. 459.)

Among the industries of England, the woollen manufacture—*inter reipublicæ columina*, as Camden described it—enjoys pre-

eminence: partly on account of its long history, which extends over eight centuries, partly on account of its wide geographical distribution. In the volume under review, which has grown out of a thesis written for the Honours School of Modern History in the University of Leeds, Mr. Heaton makes no attempt to cover the whole field of this history. Of the three great manufacturing areas associated with the woollen industry—East Anglia, the West Country, and Yorkshire—he deals only with one, namely, Yorkshire; and even the history of the Yorkshire industry is carried down only to "the eve of the Industrial Revolution." But within the limits thus indicated Mr. Heaton has produced a scholarly piece of work. He has evidently spared no pains to make himself acquainted with the original sources, and the especial value of his book lies in the fact that he has utilised not only the documents preserved in the British Museum and the Record Office, but also "papers found in various parts of the West Riding, chiefly in the hands of local authorities and the cellars of solicitors' offices." Traversing ground which had already been covered in a general way by Dr. Maud Sellers in her excellent chapter on the "Textile Industries" in *The Victoria County History of Yorkshire*, Mr. Heaton has supplied many interesting details and thrown light on obscure points. One may commend in particular the use which the author has made of the Aulnage Rolls, the discussion of the trade depression in the reign of James I, and the account of the great Yorkshire trials which are so illuminating for the study of the Yorkshire textile industry.

On points of detail Mr. Heaton's book—like every other book which handles a great number of facts—invites occasional comment. The statement that the Ordinance of 1326 forbade any person to wear foreign cloth "except royalty, nobility and those paying an annual rental of £30 or over" (p. 13) seems a *lapsus calami*. What Edward II's Ordinance of the Staple enacted was that foreign cloth should not be worn except by the royal family, the nobility, dignitaries of the Church, and persons "who can spend forty pounds sterling a year of their rents," *i. e.* landowners whose income from the rents of their land was forty pounds a year. It is not invariably true that "the master alone was eligible for the offices of the gild and he alone voted in the elections" (p. 37). At Beverley—to take the example of a Yorkshire town—the "journeyman brethren" of the Weavers' gild had a vote in the election of officers, and elsewhere it was not unknown for journeymen even to hold office as wardens.

In a good discussion of the wages paid to textile workers Mr. Heaton appears to imply (p. 110) that the Act of 1563 was not definitely applied to the textile industries until 1603, but the principle of assessment of wages by justices of the peace embodied in the Elizabethan Statute was definitely extended to the woollen industry in 1597–8, and the novelty of the Jacobean measure lay in its minimum-wage clauses. The author remarks that it is somewhat surprising to find the justices fixing time-rates for weaving instead of piece-rates (p. 112). But, as the justices of Gloucestershire discovered in 1756 when they were called upon to regulate the wages of textile workers, it was not an easy matter to frame equitable piece-rates for weaving. Many technical factors had to be considered: the number and size of the threads, the weight of the warp, the fineness of the weft, the breadth of the cloth, and the technical skill of the weaver. We cannot agree with Mr. Heaton that "the worsted industry which grew up around Bradford . . . was an expansion made largely by outrivalling the East Anglian worsted manufacturer" (p. 259), or that the prosperity of Norwich "continued until about the sixties of the eighteenth century, when the competition of the North . . . began to bring about its decline" (p. 264). The success of the Yorkshire worsted men was not achieved at the expense of the Norwich trade, since the latter was growing at the same time: indeed, Arthur Young states that the trade of Norwich was trebled between 1700 and 1770; moreover, the Norwich manufacturers made the finer qualities of worsted and the Yorkshire manufacturers the middle and lower qualities. There is, in fact, no real evidence of a decline in the Norwich trade until the second and third decades of the nineteenth century.

In connection with the textile inventions the author remarks: "The fact that most of the inventions came in the cotton manufacture suggests that in a new industry . . . technical progress is likely to be more rapid" (p. 323). Yet Kay's fly shuttle, Paul's carding machine, Cartwright's combing machine, and possibly his power-loom, "came" first in the woollen and worsted industries. The textile inventions lie, of course, outside the range of Mr. Heaton's investigations, but he thinks that they "were adopted very slowly in the West Riding industry." This is a debatable point. In the preliminary processes of the woollen industry—scribbling, carding, and slubbing—the use of machinery was already general in the last decade of the eighteenth century; as regards spinning, the jenny was used soon after its invention, and a worsted factory with water-frames was erected at Adding-

ham as early as 1787; in the case of weaving the fly-shuttle was adopted by the West Riding clothiers in the inventor's own lifetime, and though the power-loom made tardy progress owing to technical reasons, there were between five and six thousand looms in the woollen and worsted industries in 1835.

Although Mr. Heaton deals at length with the domestic system of Yorkshire, the picture which he draws hardly does justice to the really salient features of industrial organisation in the North of England. He writes:

> "The Report of the Parliamentary Committee of 1806 has created the impression that the differences between the industrial organisation in Yorkshire and the West of England were fundamental. This was not so." The "difference between the character of the Yorkshire and West of England clothiers . . . was a matter of degree rather than of kind" (p. 92).

It is true that Yorkshire contained a class of large clothiers who corresponded to the clothiers of the West Country, but the typical clothier of the North was the small "domestic manufacturer," and it was this latter class, the counterpart of the yeomanry in agriculture, which enlisted the unstinted admiration of contemporaries. Now the domestic manufacturer was a manual craftsman who worked up the wool through all the different stages in his own house, assisted by his wife, children, and journeymen. The West Country clothier, on the other hand, was not a manual worker, but an employer of labour who sometimes employed as many as 800 persons or even more. In short, the clothier of the North was a workman who owned the material on which he worked, while the clothier of the West was a capitalist who differs from the modern captain of industry in the respect that his employees did their work at home. A domestic manufacturer whose business prospered might develop into a large clothier of the West Country pattern, but the study of industrial conditions in the West of England reveals a structure of society essentially different from that existing in the North. Mr. Heaton lays stress upon the defects of the Yorkshire domestic system, but he does not point out the great merits which the class of domestic manufacturers had in the eyes of contemporaries—the absence of friction between masters and men, and the opportunities afforded for every workman to gain his economic independence.

Two minor points may be noticed. Blackwell Hall was pur-

chased by the "Mayor and Commonalty" of London, not in 1397 (p. 147), but as Mr. Kingsford has shown in his edition of Stow's *Survey*, in 1396. The date of the repeal of the "law concerning apprenticeship" in the woollen industry was not 1813 (p. 312), but 1809; it was in 1814 that the repeal was made general for all industries.

Mr. Heaton's book is the first in the series of *Oxford Historical and Literary Studies* which deals with Economic History. We welcome the innovation in the hope that the editors will endeavour to give us similar studies equal in interest and in scholarly merit.

E. LIPSON

The League of Nations Starts. (London: Macmillan. 1920. Pp. vii + 282. Price 10*s.* 6*d.*)

IT is the special merit of *The League of Nations Starts* that it traces the origins and makes known for the first time in handy and inclusive form those aspects and institutions of the League which have received little attention compared to the Assembly, the Council, the Secretariat and the Permanent Court of Justice, though these also, of course, are dealt with,—in contributions from M. Bourgeois and Mr. Fosdick. Out of thirteen contributions four deal with economics, finance, communications (M. Claveille) and health (Mr. R. P. Strong), one with the International Labour Organisation (Mr. H. B. Butler), one with the administration of the Saar and Danzig, and one with mandates and the protection of minorities (Mr. Ormsby Gore), while Dr. Shotwell's very suggestive essay on "First Pages from the History of the League of Nations" is orientated towards such functions of the League as those fulfilled by the Technical Organisations. It is, however, in some ways unfortunate that the book was published before the meeting of the Assembly, for very important decisions were then taken concerning the Technical Organisations of the League.

Of particular value and interest are the chapters on "The Inter-Allied Machinery in War-Time" and on "Economics and Finance," the former by Mr. Rublee, one of the Delegates to the Inter-Allied Maritime Transport Council, the latter by Mr. Salter, now Secretary-General of the Reparations Commission. These chapters, in conjunction with Sir Maurice Hankey's paper on "Diplomacy by Conference," read before the British Institute for International Affairs and printed in the *Round Table* (March,

1921), furnish authoritative material for an appreciation of the new development of methods for taking in hand the ever-increasing number of questions of acknowledged international concern. Mr. Salter begins with a very clear analysis of the economic duties of the League, and then proceeds to sketch his conception of its instrumentality. He considers that its object should normally be to secure prior consultation and agreement rather than immediate action. In his opinion neither the Council nor the Assembly nor the Secretariat can do effective work in the economic sphere; what is required is the creation of expert councils including among their members those who have the actual power of decision in their respective Governments; these councils should be based upon sectional organisations in the main capitals of the world and should hold periodical general conferences; they should be co-ordinated and assisted by the Secretariat of the League, but not actually controlled in their current action even by the Council of the League.

The Advisory Economic and Financial Committee, set up by the Assembly last December, is, as even its title shows, conceived on quite contrary lines. There were strong currents in the Assembly in favour of delimiting strictly the powers of this and such other bodies as the Organisation for Communications and Transit and the Health Organisation in such a manner that not only should the Secretariat assure strict co-ordination, but the Council have full opportunity of exercising very considerable control, and it was under these conditions that the Technical Organisations were created. The action of the Assembly in this matter may seem to have been unduly lacking in boldness and vision, but boldness cannot with fairness be expected of a body whose decisions have to be taken unanimously; the money side of the question was much to the fore, and in certain respects the fundamental cleavage of interests and difference of attitude between European and extra-European countries cannot be obviated. On the whole, the six months that have elapsed since the meeting of the Assembly have seen a promising increase of constructive work, which, given the desire of the Governments, and above all of the peoples behind them, to develop and utilise it, may well prove the solid basis for a steady growth in the activities of the League.

On the other hand, it is important to remember that certain of the factors so clearly set out by Mr. Rublee as being of chief weight in making for the success of the many Inter-Allied organisations during the War have now largely ceased to operate and

cannot make for the similar success of the Technical Organisations of the League. The "limiting factor" of tonnage can no longer act as the final basis for decisions. The war-time "equality of sacrifice in a common cause" cannot but raise doubts as to how far there is now felt to be any common cause and as to how far equality of compensation for sacrifice has not been substituted. Direct contact means something very different when Brazil and Australia and Sweden, and not only "the principal Allied and Associated Powers," are involved. The possibility of persuading many millions to lower their standards of life to a minimum capable of some approximate statistical computation in terms of cost of living is vanishing now that the obvious dangers are past and the great emotional appeals, in most cases, impossible to evoke. There is, of course, much of value for the institutions of the League in the living experience available of the actual working of international organisations during the War, but the foundations and inner spirit cannot for a moment be taken as secure without blindly courting failure.

B. H. SUMNER

Labour as an International Problem. (London: Macmillan. 1920. Pp. ix + 345. Price 18*s*.)

THIS volume is composed of nine essays by eminent labour leaders or public servants, all of whom, with one exception, are closely connected with the International Labour Organisation. The criticisms which can be made against this form of treatment of a subject are largely met by the editor, Mr. Solano, in his balanced and comprehensive introduction. The first two chapters, by Mr. Barnes and Dr. Shotwell, deal admirably with the origin, constitution and general functions of the International Labour Organisation. Mr. Appleton follows with an essay on the general attitude of the International Federation of Trade Unions, written before his resignation of its presidency; he examines the conflicting forces animating the post-war labour movement and agrees with Mr. Barnes in advocating an ordered and constructive policy of industrial reform as the surest method of advancing social progress. He is extremely cautious in defining the policy of the Federation to the International Labour Organisation, but, as pointed out in the introduction, he wrote before the election to the Governing Body of the International Labour Office of M. Jouhaux and M. Oudegeest, the well-known Trade

Union leaders in France and Holland, who are respectively Vice-President and General Secretary of the Federation. Mr. Minoru Oka, one of the Japanese Delegates at the Paris Peace Conference, and M. Vandervelde, the famous Belgian Socialist Minister, deal with the special labour problems of their own countries. Mr. Oka's general considerations on the relation between conditions in Japan and those in Western Europe merit particular attention; he believes that, given wise treatment of the Japanese workers, it may be possible for Japan to profit from the experience of Europe during the last fifty years in such a manner as to avoid a repetition of similar class struggles and labour crises. The remaining five chapters constitute an authoritative review of the practical development of the international regulation of labour questions down to the Washington and Genoa Conferences. In the Appendices are included the Labour Part of the Treaties of Peace and the texts of the draft conventions and recommendations adopted at these two Conferences.

Great care is taken in the different essays to set forth various aspects of the problem of the international regulation of labour questions and its scope and purpose; there is, however, on the whole insufficient recognition given to the fundamental attacks now current against the evolution of social reform through parliamentary, or even peaceful, action. Mr. Barnes points out that the difficulties of raising the general standard of life among the working class by international action are in essence the same as those experienced in the national sphere; nations, in a similar manner to individual employers, are deterred from carrying out reforms because they fear to be handicapped thereby in competition with other nations. Until now there has been no possibility of organised international pressure being brought to bear with the object of securing simultaneous and relatively uniform progress. Simultaneity is essential: on the other hand, the idea of a strictly uniform standard is regarded as being impossible, even if desirable. It is thus from one point of view a minimum standard with which the International Labour Organisation is particularly devised to assure. Such an assurance will permit of further development of the higher standards prevailing in the "advanced" countries. The opposition to rigid uniformity is marked in the Treaty of Peace by the express recognition of the effect of varying climatic and social conditions and by the provision that no country shall be asked "to lessen the protection afforded by its existing legislation to the workers concerned." At the same time, the actual existence of a considerable degree

of uniformity in the habits, conditions of work and mental background of the workers in certain great regions of the world is fairly emphasised by M. Fontaine as being one of the chief causes of the need of realising the aspirations of the workers by reforms, which yet must be undertaken on an international scale, since the strictly economic and financial factors in most cases preclude the success of reforms attempted only on a regional basis. A good instance of such international regulation of industry is shown in Miss Sanger's informing chapter to be the case of the use of poisonous ingredients in certain processes and of preventive or remedial measures against accidents and occupational diseases.

Miss Sanger, and several of the other contributors, point out that among the main obstacles to such international regulation in the past have been the lack of any regular machinery and of any consecutive policy and the unrepresentative, semi-diplomatic character of such occasional bodies as were called together. The reader will find abundant proof in the pages of Mr. Barnes, Dr. Shotwell, Mr. Butler and M. Albert Thomas of how those obstacles have now been removed. Mr. Barnes's opening chapter on the scope and purpose of international labour legislation includes a clear summary of the main provisions of the Labour Part of the Treaty. His convincing defence of the composition of the annual Labour Conference,—each delegation consists of two Government, one employers' and one workers' representative,—should specially be noted. The Treaty expressly provides that each Member shall appoint employers' and workers' delegates, as well as their technical advisers, "in agreement with the industrial organisations, if such organisations exist, which are most representative of employers or work-people, as the case may be." Mr. Barnes, as also Mr. Oka in writing of Japan, justifiably emphasise the great advance thus made in official recognition of the right of combination, and Mr. Butler furnishes solid support in pointing out the practical experience of the Washington Conference in this question of representation. Mr. Barnes's chapter closes, however, with the significant reminder that in many countries the difficulties as regards combination now come mainly from the workers themselves: "There are too many Trade Unions and too little Trade Unionism." He is optimistic, nevertheless, as to the efforts of labour leaders to rectify existing anomalies by federation and amalgamation.

It will doubtless be most gratifying to English readers to find in Dr. Shotwell's vivid survey of the historical background and working out of the new machinery incorporated in the

Treaty of Peace repeated praise of the original draft of the Labour Part of the Treaty drawn up by the British Ministry of Labour and of the patient skill of the British Delegates at Paris in accommodating this draft to American requirements, the most important of which were concerned with the constitutional difficulty of the relationship between the treaty-making power in the United States and the authorities competent in labour legislation, *i. e.* the individual States. A very clear idea is given of the extent to which the Labour Conference can be said to initiate legislation on an international scale and of the two chief methods—draft conventions and recommendations—by which it acts.

The book closes with two absorbing chapters from M. Albert Thomas and Mr. Butler. M. Thomas, the famous ex-Minister of Munitions, outlines the initial organisation of the International Labour Office, of which he is the Director, and sums up in a few vivid pages its *rôle* and the spirit with which it is inspired: the reader will certainly wish that this chapter were longer; he cannot do better than read M. Thomas's articles in the January numbers of the *Quarterly Review* and the *International Labour Review*. Mr. Butler, who was the Secretary-General of the Washington Conference and is now the Deputy-Director of the Labour Office, compresses into his fifty admirable pages on that Conference the solid basis of achievement and experience which goes far to show that the international idea is not "a kind of watery friendship" without profit or hope of endurance, but a practical "movement for the ordered improvement of the lot of mankind."

B. H. SUMNER

The British in China—and Far Eastern Trade. By C. A. MIDDLETON-SMITH, M.Sc. (London: Constable & Co., Ltd. Pp. ix + 295. Price 18*s.* net.)

As a contribution to our economic literature the value of this work is probably not very great, but, for all that, it is an interesting study of men and affairs. The book is refreshingly unconventional, due in a large measure, we should say, to the fact that it was written in queer places. Parts were evolved on steamers off the China coast; others in a sedan chair in a Chinese city; others in the "Forbidden City," in Peking and in a Chinese gaming-house at Canton. The result, if rather curious, is to show

us that by probing beneath the surface the author has got down to the bedrock of things Chinese. He reveals that of all the countries of the earth China contains the most vast and undeveloped natural resources; it is a land of untold latent wealth, which contains within its borders a remedy, not only for most of its own economic troubles—and they are many—but even, the author avers, for the economic ills of Europe and America. If only the boundless wealth of China were set free by the application of Anglo-Saxon methods of industry and government, we read, the world could quickly obtain all the raw materials it needs so badly, and the Chinese would acquire the wealth necessary to lift the country and its people from the present slough of despond into which they seem to have drifted. Just so; but the reader will doubtless wonder whether even this alluring prospect will, in the present chaotic state of the world's finance, tempt Europe and America to extend the credit facilities which, after all, are what the world most requires to shift raw materials from those who have to those who have not. Nevertheless, it is, we believe, the earnest desire of the Four-Power Consortium to assist China in obtaining, through the establishment of a strong and suitable Central Government, the degree of security required for the development of her immense natural resources, though, as the British representative of that Consortium recently said, any reform in China must come from within. China can only be saved by her own exertions, a fact which is slowly but surely being borne upon the thinking Chinese. As this volume clearly shows, however, the way of salvation for China lies through the extension of her foreign trade.

Mr. Smith is a whole-hearted exponent of British methods, and he devotes much space to a description of trade and commerce with China, that land of strange and devious devices. For past and present British traders and financiers in China he has a very high regard. The beginning of our relations with China are traced back through several centuries, to a period, in fact, when a letter was sent from Queen Elizabeth to the Emperor of China asserting "principles of free and equal intercourse between the peoples of the world, which is to-day the pivot of the endeavours of the wisest Anglo-Saxon statesmen." Trading in the early days was perhaps somewhat negligible, being left rather to the adventurers than to the more cautious and conservative men of affairs, but from 1885 to 1904 the value of China's overseas trade is shown to have increased steadily. As an average of three years, in 1885 the total was 180·8 millions of Haikwan taels; in 1904

it was 523 millions. To go back a little, in 1883, China's imports and exports were valued at 143·8 millions of taels; the figures were practically doubled every ten years, until in 1913 the total was 973·8 millions of taels. In 1919 (the figures for 1920 have not yet reached this country) the total trade figures were, Haikwan taels 1,277,807,092, made up as follows: imports, Hk. taels 679,529,544, less re-exports Hk. taels 32,531,863 = net imports Hk. taels 646,997,681. The exports were Hk. taels 630,809,411.

All this has not been accomplished without considerable effort on the part of the merchants and banks; and, as the author shows, the credit is in no small degree due to the early British pioneers who penetrated into the innermost parts of China in their endeavours to foster and to maintain trade between East and West.

The description in the book of how business is conducted makes most interesting reading, and will prove useful to those who contemplate entering into business relations with the Chinese. China is a land of contradictions; a great deal of trade is done solely by word of mouth, yet a Chinese merchant will prove time after time that his word is his bond, and knowing all this, Europeans in the East trust the Chinese and each other in business much more than is common in London or elsewhere. But, as the writer remarks, "it would be wrong to give the British manufacturer the idea that there is no such thing as a dishonest Chinese, because it is a fact that the contact with Europeans in the Treaty Ports has not been altogether to the advantage of commercial morality in China." In the circumstances, safeguards are necessary. The compradore system has received wide support. Most firms and banks of repute employ the compradore, a sort of Chinese guarantee broker, who acts as the connecting link between Europeans and the Chinese, and it is this go-between who takes upon his shoulders the responsibility for the transactions entered into with the Chinese.

It is a *sine quâ non* for European traders to use a "chop." A chop is the Chinese name for a trade-mark; and it is the chop which makes the goodwill of the old-established houses so famous in the East. In China, where the commercial machine is often clogged by mutual suspicion, and creaks along in the manner of centuries ago, the chop seems to have become indispensable. Every piece of silver that passes through Chinese hands is chopped by those who have handled it, and even bank-notes issued by the leading foreign banks are marked. The chop is the sign of the firm or man who has used the silver or note, and it is a guarantee

that the currency is genuine. Similarly, with goods and commodities, marked with well-known " chops," the Chinese know that they are what they purport to be, and there is an end to the matter.

One thing we learn from this book is that any one who wants trade in China has to pay for it. The British people, we are informed, are backward in throwing the sprat to catch a mackerel, but it must be done in China. Any firm that wants to reap the rich harvest of trade which China has to offer must be prepared to spend money in watering the soil. The thing must be well done if it is to be done at all, and the concern ambitious for China trade must be ready to spend money in the early years.

The language difficulty is shown to be not so insuperable as men often imagine it to be, but the book impresses upon the authorities in England the necessity for establishing some really inspiring and attractive school for the study of Chinese at home, not a school which will form the resting house for pensioned civil servants, but one with properly trained and energetic teachers. Every one seems to be agreed that if Great Britain is to obtain her share of trade with China, the study of Chinese must be encouraged, and it may be done by properly directed efforts not only in China, but also by the London School of Oriental Studies.

Mr. Smith has thoroughly grasped the fact that it is in railway civilisation we have to look for the real development of China; much has been accomplished in this direction, but a great deal remains to be done. As is probably well known, hitherto railways in China have been constructed in sections, one section being allotted to a British engineer, one to an American engineer, one to a French engineer, and so on. Such a system, though fairly successful, actually militated against forward progress. Now it is the declared policy of the new China Consortium to unify the whole railway system of China. It is part of their programme to abandon the sectional distinctions that have existed for so long, and to entrust the administration of the system as a whole to a Railway Board in connection with the Government Department of Communications in Peking. It is proposed that the Chairman of the Board shall be the Minister himself, aided by four Chinese colleagues and four engineers, upon whose expert advice and assistance he can rely.

In this review, of necessity, one has been able merely to touch upon the fringe of the many questions that have been raised by the author; what he writes on coal-mining and the exploitation of the mineral wealth of China will be studied with deep interest,

and those who are interested in the doings of British subjects in the outposts of China will find much food for reflection in those chapters dealing with Britons who have served China. The record of the achievements of Englishmen, Scotsmen and Irishmen, all really great men, is well described. The only fault from which the book suffers is in its arrangement. The author has tried to include too much in the compass of one volume, and the reading is apt to be "scrappy" in consequence. To be really valuable for economists such diverse subjects as are touched on in the book are best treated in separate volumes.

WILLIAM F. SPALDING

SOME RECENT FRENCH BOOKS

Traité élémentaire d'économie politique. Par BERTRAND NOGARO, Professeur d'économie politique à la faculté de droit de l'Université de Caen. (Paris: Giard & Cie. 1921. Pp. 598. 8vo. 30 francs.)

Cours d'économie politique. Par HENRI TRUCHY, Professeur à la faculté de droit de l'Université de Paris. Tome deuxième. (Paris: Sirey. 1921. Pp. 464. 8vo.)

Traité d'Économie Politique. Par MAURICE ANSIAUX, Professeur à l'Université de Bruxelles. Tome premier. (Paris: Giard & Cie. 1920. Pp. 389. 8vo. 20 francs.)

Le système monétaire et le change anglais depuis la guerre. Par ALFRED MAWAS, docteur en droit. (Paris: Giard & Cie. 1921. Pp. 406. 8vo.)

La Bourse des Valeurs de Paris pendant la guerre (1914–1920) *avec neuf graphiques hors texte.* Par MARCEL BOURBEAU, docteur en droit. (Paris: Librairie générale de droit et de jurisprudence. 1921. Pp. 384. 8vo. 25 francs.)

THE man in the street is generally ready with one suggestion for the tax-gatherer. He would fain impose a tax upon some luxury he is not inclined to; and this sentiment is so diffused that a plebiscite would probably result in an almost unanimous vote in favour of taxing new treatises on the Principles of Economics. It would be a sorry world if every classical master thought it incumbent upon him to bring out a new Latin or Greek grammar; and at a time when paper and printing are so expensive, and the public are compelled to limit severely their expenditure on books, it is intriguing to find that experienced

publishers are ready to put out book after book which merely tells us what others have said before and frequently have said better.

Possibly the French student who wishes to do well in his examinations is expected to swear in the words of his teacher and virtually compelled to buy his Professor's manual. If this be not the true explanation, the market for these new books must be so limited that the authors probably pay dearly for the pleasure of seeing their works in print.

Professor Nogaro has already published, under the title of *Éléments d'économie politique*, an epitome of the lectures which he has given to his classes. The present volume is an enlarged edition of the Elements with a different title. The author observes that he has been unable to devote himself to personal research into all the topics touched upon, and thinks it unnecessary to excuse himself for borrowing largely from classical authorities. Upon them the reviewer need not enlarge. The exposition is lucid and fairly complete in range, though somewhat thin. The references to leading authorities are superficial, and though the list of names is of formidable length we are told only of Jevons that he employed the language of mathematics, and of Seligman that the student may refer to his *Principles of Taxation*, which we should like to see. The section devoted to money and banking is the best portion of the book, but we look in vain for anything new in the treatise.

Professor Truchy's *Cours* is of a weightier character. His second volume deals with international economic relations, distribution of wealth, public finance, and social questions. It is a thoughtful and balanced statement of facts and theories. His underlying philosophy is that of the classical French economists, which is perhaps the beginning of wisdom in economics, but is certainly not its end. There are times and seasons when the easy optimism of free exchange and *laissez-faire* are as insufficient as trusting to the *vis medicatrix naturæ* and the patience cure when you are bitten by a mad dog. The assertion that the foreign exchanges cannot long remain unfavourable to a country, but must in time become favourable, will cause the reader to rub his eyes and read it again. The argument that if the dollar stands at 10 francs, instead of at its old parity of 5·18 francs, the American is buying French labour at a *vil prix* and the dollar is "a kind of tyrant," while the French exporter to America is receiving a subsidy of 100 per cent., omits the essential factor that the new franc differs in everything but name from the old

franc. The critic will find many passages against which to mark a note of interrogation, but he will also find a good deal that is useful and interesting, and will wish to keep the volume on his shelf.

Many of us remember the favourable impression made in 1892 by *La Question Monétaire en Belgique*, par Maurice Ansiaux. The young advocate at the Liége Court of Appeal has now become not only a Professor of Economics at Brussels, but *Conseiller de Gouvernment près le Ministère des Finances et Membre du Conseil Supérieur du Travail.* In this first part of his *Traité* he confines himself to the economic organisation of society. Competition and monopoly, trusts and syndicates, home-work, agriculture, commerce, railways and banking and financial concentration are the staple of the volume. The questions of value, wages, profit, interest, rent, etc., are apparently reserved for later treatment; the scientific kernel of the *Traité* has yet to appear. The description of economic organisation is well documented without being complete. If it were worth doing on this scale it would seem less out of place in a separate treatise than as part of a *Traité d'économie politique.* On its merits the volume may be said to contain many facts and figures, but few illuminating ideas except those which are already current.

The monograph by Dr. Mawas is the best we have yet seen upon its subject. The draft on London has been, is, and will continue to be, such a prime favourite in international trade that the English (or more strictly the London) exchanges are naturally selected as the centre from which to measure the fluctuations in currency values. The author expounds clearly the theory of foreign exchanges, and examines critically the views put forward by various writers since 1914 as to the causes of the perturbations experienced. He has the wisdom to reject the single cause solutions—that it is all a question of public confidence, or of the balance of trade, or payments, or the stock of gold in the country, or the mass of currency of all kinds, or the balancing of the budget. His examination of the limitations of the various theories leads him to the conclusion that a complex of interacting factors enters into the problem, but he endeavours to make clear the qualitative influence of each factor, and holds fast to the anchor of conviction of the truth of the quantity theory of the value of money, with a due appreciation of its limiting postulates. His desire to see a return to monetary equilibrium and to sound currency under cautious conditions is a pious aspiration widely shared; but hard work and hard living, hard money and hard

thinking, are more easily sighed for than attained. The descriptive part of the work is admirably done and shows both intimate and accurate knowledge of the action taken, the agents concerned, and the literature of the whole subject. The graphs at the end of the volume are particularly valuable.

Dr. Bourbeau gives us a luminous account of the Paris Stock Exchange during the war, its difficulties, its closing, reopening, restrictions and special regulations, and shows its working under trying conditions. He acutely observes that in many quarters the Stock Exchange is regarded as a luxurious excrescence of society which can be dispensed with in a great crisis without serious inconvenience, or possibly with advantage. Even those who think of it as a kind of weir into which stocks and shares can be poured, or out of which they may be drawn as desired, fail to perceive the great national utility which it possesses in common with banks and great finance houses of mobilising the resources of the country and of serving as a great reservoir of capital. The actual texts of the decrees and official letters regulating the Bourse since 1914 are set out, and the authorities are sharply criticised for lack of insight and narrowness of vision in crippling the Bourse to the disadvantage of public finance. The author offers proposals for reform of the Paris Bourse which we lack space to consider. They will repay study, and should receive serious attention in this country when the reform of our own Stock Exchange, long overdue, is taken in hand. The book is an interesting and useful contribution to the history of war finance.

HENRY HIGGS

NOTES AND MEMORANDA

THE TER MEULEN SCHEME

ALL those who have been long in public life know how situations arise in which the public expect "something" to be done to relieve the immediate need. Experts, understanding the difficulties better than the public can do, meet to devise a scheme and eventually produce something, rather in the hope that it will suffice to still the cry for the time being than that their scheme will prove a panacea.

This I should judge to have been the case in the proposal of the League of Nations to adopt the ter Meulen scheme of guaranteed credits for exporters. It has the merit of being perfectly simple theoretically. The governments in countries *aux finances avariées*, as Leroy Beaulieu used to call them, are to issue bonds in guarantee to the foreign exporters of the price of the imported goods. This is the scheme in a nutshell.

The League says that, under the scheme, "the exporter must still satisfy himself, as he does at present, about the standing and credit of his customer." But why should he, if the guarantee is good and liquid—that is to say, if it can be readily turned into money? It is the guarantor's duty to look into the solvency of the debtor, not that of the creditor. If a purchaser brings, for example, the guarantee of a good bank, the seller looks no further.

Everything, therefore, to the English exporter, depends on whether the bonds of the governments concerned—say the Austrian Government—would be a liquid asset.

When studying these questions, the first thing to understand is that, when we talk of "moving funds," "remitting or transferring money" from place to place, we are, scientifically speaking, talking nonsense. Almost as omnipresent as the ether, money is equally intangible. It eludes our grasp. It is where it is, and no one can take it in his hand and move it.

For money is debt, and the pieces of paper or metal which we guard with such care are not the money itself, but merely the

proof of its existence, if anything so ethereal can be properly said to have an existence—proof of its being, I would rather say.

Debt is immutably domiciled in the home of the debtor, and can no more be moved than a house. If you have a house in the country and want one in town instead, you cannot move your house to the town. All you can do is to exchange the house in the country for one in the town, or to sell the one and buy the other; and whether you can realise your desire depends on whether there is some one in the town willing to make the exchange, or whether there is some one willing to buy your country house and some one else willing to sell you his house in town. If you cannot sell your house, or if you cannot purchase one in the only town in which you wish to live, no transaction will take place.

And so it is with money. If a manufacturer in England sells to an importer in Austria, he obtains the price in money in Austria, and can by no means remove it. If he cannot exchange this money for money in England, whatever value it may have in Austria, it has none to him.

The question, therefore, that has to be decided by a manufacturer who might wish to make use of the League's scheme is whether he can sell Austrian bonds for money in England. To-day, I am informed, there is practically no market in London for Austrian bonds. The situation of a manufacturer who, under present circumstances, accepted the guarantee of Austrian bonds would be similar to that of one who should accept the guarantee of an individual who could not pay the guarantee money and whose effects might or might not be saleable. No manufacturer would accept such a guarantee. It is essential that a guarantor should be able to pay the guarantee on demand. To make the proposed bonds attractive, it would be necessary for Austria to accumulate a fund in London for the redemption of the bonds.

We now come to another point of equal importance. There is to-day practically no market for Austrian exchange in London, and the sale of a comparatively small amount of Austrian money —say £20,000—would, I am informed, appreciably affect the rate. It is evident, therefore, that if by artificial means it were possible to foster the export trade with Austria to an extent which would be of any value to British trade, the immediate result would be a further fall in the exchange, and the same effect would be produced should Austria try to accumulate sterling. The exporter, to cover himself, would have to draw on

Vienna in sterling, and the fall in exchange would cause the price of the goods to be higher than the importer bargained for. If, as would probably be the case in most instances, the prospective importer had already contracted to deliver the goods at a quoted price, he would be the loser.

From this dilemma there is no escape.

That the difficulties in the way were not underestimated by the experts of the League of Nations who visited Vienna and are chiefly responsible for the proposals made in the Report of the Finance Committee of June 15, 1921, is shown by the conditions laid down as the essential preliminary to affording their aid in the financial reconstruction of Austria. They are as follows:—

1. That all foreign countries shall agree to suspend their rights in respect of the expenses of the armies of occupation, claims for reparation, and Relief Credit bonds for at least 20 years.

2. That the Austrian Government shall take immediate steps to balance its budget, the deficit on which for the year 1920–1921 reaches the huge figure of 53,000,000,000 kronen. (The krone before the War was about equal to the franc.)

3. That the issue of paper money shall cease.

4. That, to help to realise 2 and 3, an internal loan shall be issued.

5. That a bank of issue shall be created with a capital of 100,000,000 francs, half to be subscribed in foreign countries. One of the main duties of the bank would be to take measures to maintain the gold value of the currency.

6. That a foreign loan should be floated; one of the principal objects being to obtain funds in foreign countries, to be used in conjunction with the bank's operations for stabilising the exchange.

Provided that these conditions are fulfilled, the League is prepared to authorise the issue of ter Meulen bonds as security for temporary credits. But their fulfilment presents formidable obstacles and the most sanguine temperament could hardly hope that, even if the whole scheme be ultimately carried through and prove successful in restoring Austrian credit, this could be done in time to meet the immediate needs of European commerce.

The issue of ter Meulen bonds appears to be intended to tide over the transitional period between the initiation of the scheme

of reform and its final success; but exporters could hardly be recommended to accept them until, at least, the reform had gone so far as to insure the saleability of the bonds, and this will not be at once. The Finance Committee of the League anticipates that at least two years will be required to balance the budget. If the Austrian Government can wipe out their enormous deficit in that time, it will be greatly to their credit.

Quite another aspect would be given to the ter Meulen scheme, from the point of view of British commerce, if the bonds could be used in conjunction with the export credits scheme of the British Government; if, that is to say, the government would agree to buy forfeited bonds and hold them for eventual sale or redemption.

All this presupposes, of course, that the governments concerned would be willing to pledge their credit for the sake of their importers, but financial history is not encouraging in this respect. Parliaments are often tender-hearted towards their manufacturers and exporters, but usually leave importers to shift for themselves.

It is to be noted that the delegates of the League do not consider that Austria requires any special credit facilities for the purchase of raw material and coal (*Report of the Finance Committee*, p. 28).

A. M. INNES

WAGE ARBITRATION IN NEW ZEALAND UNDER FALLING PRICES

THE New Zealand Arbitration Court has come to a critical stage in its existence. It was established in 1894 by the Liberal-Labour Party as one of their first measures of State Socialism, and was designed mainly to provide a system of compulsory arbitration in labour disputes which would reduce strikes to a minimum. The original Act (Industrial Conciliation and Arbitration Act, 1894) provided for permanent Conciliation Boards as a preliminary to the Arbitration Court which was presided over by a Judge of the Supreme Court, assisted by two assessors nominated by the Governor on the recommendation of Employers' Associations and Trade Unions.

It was, however, alleged by the employers, who at this time were mainly hostile to the Court, that the permanent members

of the Conciliation Boards fostered disputes, and in section 60 of the I. C. and A. Amendment Act, 1905, power was given by which either party could refer a dispute direct to the Court. The Conciliation Boards atrophied, and in a further amending Act (1908) three permanent Conciliation Commissioners were appointed to act as chairmen of Conciliation Councils formed *ad hoc* from persons who had been, or were at that time, engaged in the industry. This device, supported by the insistence of the Court that an honest effort be made to effect a settlement before an award of the Court is sought, has in practice worked well. The Conciliation Councils usually arrive at considerable agreement and narrow down the issues to be decided by the Court, which in its award incorporates the agreed conclusions. In the last resort, then, the system is one of voluntary conciliation, supplemented by judicial fixation of wages, and as such, the prestige of the Court has always depended primarily on the personality of the Judge.[1]

Awards of the Court are binding on all unions (whose membership must be fifteen or over) which have registered under the Act, but in practice a large part of the economic life of the Dominion is outside the purview of the Court. The main industry of New Zealand is pastoral farming, a great part of which is in the hands of medium-scale working farmers who depend on their own labour and that of their families. A dispute was once brought to the Court by the Farm Labourers' Union, but the Court refused an award.[2] In addition, several of the more militant unions, among them the Miners, Waterside Workers, Seamen and Freezing Works Employees—the leading members of the Alliance of Labour—have for years been hostile to the Court. The Miners went so far as to withdraw their registration under the I. C. and A. Act, and registered under the Trades Union Act. "Loyal" unions, however, were formed and registered under the I. C. and A. Act, and secured awards or agreements enforceable at law, so that the Miners were practically forced to join and swamp these unions. At present all the militant unions are registered; but they defy the Court in every way possible and some never appear before it.

From the militant unions which are vaguely syndicalist in their theory have come the strikes of recent years, including the

[1] There are many descriptions of the New Zealand system of arbitration; the fullest is Broadhead's *State Regulation of Labour and Labour Disputes*, written from the employers' point of view.

[2] See *Awards of Arbitration Court*, Vol. IX., p. 517.

big Waterside Workers Strike of 1913, and the various war-time and irritation strikes of the Miners.[1]

Within a limited sphere, however, the system inaugurated in 1894 can claim a fair measure of success. It has undoubtedly reduced industrial friction, particularly in the earlier years of its work. It has also provided a tribunal before which the circumstances of important industries can be fully and frankly discussed.

There has been no full and scientific inquiry into the influence of the Arbitration system on the general rate of wages; but at least one negative conclusion is clear, that the Court has not raised real wages. It has for many years done little more than register conservative estimates of the increase in money wages necessary to keep pace with the rising level of prices. In the nature of the case, moreover, wages are fixed for a term, some awards running as long as three years, so that with a constantly rising level of prices, labour is always at a disadvantage.

There has never been any definite pronouncement by the Court of the system upon which awards are decided. Apparently the main features of the award having been settled by a Conciliation Council, the issues still in dispute are decided by the Judge largely on opportunist grounds. What an industry can bear, what other industries have received, the skill with which a case is presented, the cost of living, and many other factors influence the decision.

The Royal Commission on the Cost of Living (H. 18, 1912) gave two estimates (pages xlix–l) of the changes in real wages between 1896 and 1907, the increase being given in one case 3 per cent., in the other 9 per cent. During the whole of this time New Zealand was extremely prosperous.

In 1919 a more elaborate analysis was made by G. W. Clinkard.[2] Although this thesis is based on rates of wages as disclosed in awards of the Court, rather than on actual earnings, there is no reason to suppose that the ratio between rates and earnings changed materially during the period covered, so that the comparative value of the figures is not affected. A table on page 909 of the Official Year Book (1919) calculates real wages as measured in Food-prices and Rents. Taking 1911 as base = 1000, the trend of real wages appears to have a general downward tendency

[1] The total membership of the registered unions at 31st December, 1919, was: Industrial, 82,553; Employers, 5,146; in all about 7½ per cent. of the population. The membership of the main militant unions was: Miners, 2,356; Seamen, 3,504; Watersiders, 6,673; Freezing works employees, 6,541.

[2] Published as an Appendix to the *Official Year Book*, 1919.

from 997 in the triennial period 1901–3 to 946 in 1916–18 (the last complete figures).

One is justified in asserting, therefore, that the general rate of real wages has not been raised by the Court even in a time of steady prosperity. This conclusion is in accord with general opinion, and is part of the reason for the antagonism of militant labour. The further conclusion that may be drawn is also widely held, viz. that of recent years there has been an actual decline of real wages. There is not sufficient evidence, however, to say whether the lagging of real wages is due to the Court, or not.

Though it has not succeeded in raising real wages, the Court has undoubtedly standardised them, both as between industries and as between employers within the same industry. There is no reason to believe that the minimum award rates have become the maximum. There is still a differentiation of wages in favour of the better workman, and it does not take the secret and underhand form described by Mr. Aves, who must have had his information from an employer who was hostile to the Court.[1] An investigation in Christchurch recently showed approximately 60 per cent. of the workpeople in receipt of wages above the award rate, and there are actually important factories in which task and bonus systems operate. The War Legislation and Statute Law Amendment Act, 1918, gave power (section 18) to the Court to take increases in the cost of living into account during the currency of awards, and on April 19, 1919, the Court made its first pronouncement under this authority.[2] After explaining that it would fix minimum rates and then announce periodic bonuses or reductions in bonuses, as the cost of living changed, the Court fixed the basic rates as follows: [3]

> Skilled workers, 1*s*. 7½*d*. per hour.
> Semi-skilled workers, 1*s*. 4½*d*.–1*s*. 6*d*. per hour.
> Unskilled workers, 1*s*. 3½*d*. per hour.

In the words of the Court "these wages are substantial increases, for the different classes of workers, upon the wages prevailing immediately prior to the war, and, to some extent, although not wholly, compensate the workers for the increases in

[1] Cf. Aves' *Report on Wages Boards*, p. 100, quoted by Pigou: *Economics of Welfare*, p. 433.

[2] *Book of Awards*, Vol. XX., p. 403.

[3] These rates carried a flat rate of bonus of 2½*d*. per hour over and above the basic rate, as compensation for the additional increase in the cost of living *since* the passing of the 1918 Act. This was the first of the half-yearly bonuses discussed below.

the cost of living up to the time of the passing of the recent Act."

A year later, on April 27, 1920, on the occasion of the announcement of the third bonus, the Court reviewed the basic rates in what is known as the Gisborne pronouncement and readjusted them as follows.[1]

> Skilled workers, 2*s*. per hour.
> Semi-skilled workers, from 1*s*. 8*d*.–1*s*. 10*d*. per hour.
> Unskilled workers, 1*s*. 7*d*. per hour.

The Court now holds to these rates for all industries, and the main source of disagreement in any dispute is the classification of workers concerned into the grades specified. So that in the strict sense of the word, New Zealand may be said to have a legal minimum wage.

Economic students have foreseen for some time that the test of the Arbitration Court would come when the rigid fixation of wages for a period failed to correspond with prices of other commodities and services. The test might come in one of two ways, either by the cost of living rising sharply and continuously over a period of years, or by a sudden turn of prices leaving the wages fixed at a level which was burdensome to industry. Both these conditions have occurred in a short space of time and the Court is feeling the strain badly.

As long as nominal wages were steadily increased, even though the rate of real wages was at least not rising, there was not much dissatisfaction with the Court. But with the sharp rise of prices due to war inflation the gap between nominal and real wages became too obvious, even during the currency of an award, and it was for this reason that the amending legislation of 1918 (referred to above) was passed, so that the Court could review and amend an award at any time. This the Court proceeded to do by fixing basic rates and announcing a bonus every six months, calculated on the moving average of the Government Statistician's index-number of retail prices of foods and rent, as a flat rate of pence per hour.[2]

The first bonus, announced on April 19, 1919,[3] was 2½*d*. per hour ; in November a further 1*d*. per hour was added, and the following April, at the time of the Gisborne pronouncement,

[1] *Book of Awards*, Vol. XXI., p. 513.

[2] The bonus was calculated on the basis of the semi-skilled workers' wage so that the unskilled workers gained a preferential treatment.

[3] *Book of Awards*, Vol. XX., p. 403.

another 3*d.* The cost of living continued to rise sharply, and in November 1920 another bonus of 2¼*d.* per hour (9*s.* per week) was announced.[1] But by this time it was becoming clear that the after-war boom was drawing to a close, and the employers offered a strenuous resistance to the granting of the latest bonus. The Court reconsidered its decision at a special sitting in Wellington early in December 1920. There was a fully representative panel both of employers and trade unionists, and evidence as to the financial outlook was given by the Chairman of the Bank of New Zealand. In the evidence of the Government Statistician it was made clear that in this and the preceding bonus an error of calculation had been made, the adjustment of which would reduce the bonus payable to 5*s.* per week (1¼*d.* per hour). The Court decided to revoke its pronouncement, grant a bonus of 3*s.* per week (¾*d.* per hour) and carry forward 2*s.* per week.[2]

When the next bonus fell due early in May 1921, it appeared that with the 2*s.* carried forward, a bonus of 5*s.* should be granted. But in the meantime the slump had occurred in real earnest and the war prosperity had given way to the anxiety of a severe crisis. To many people the first indication of financial trouble came when the first wool sale of the season was a fiasco; but a severe financial stringency was rapidly developed. The high price of butter and the guaranteed price of wheat alone saved the farming community from serious disaster. As it was, the crisis disclosed in the country a bad inflation of land values and in the town serious over-importation and increases of stock.[3]

Under the circumstances, Mr. Justice Frazer, with the concurrence of both his colleagues (representing the labour unions and the employers), announced a scheme for the stabilisation of wages for the ensuing twelve months, under which the bonus falling due was withheld, and the promise was made that it should be offset against the prospect of wage reductions.[4]

Although the bonuses had not effectively countered the rising cost of living even as measured in food-prices and rent,[5] they had been effective in allaying unrest, and the withholding of the bonus was strongly resisted by the Trade Unions. An appeal was made to the Court to reconsider its decision, but this the

[1] *Book of Awards*, Vol. XXI., p. 2103.

[2] *Ibid.*, Vol. XXI., p. 2233.

[3] The imports for 1920 were £61,595,828, as against £30,671,439 in 1919.

[4] *Book of Awards*, Vol. XXII., p. 804.

[5] Food prices in New Zealand did not rise as much as the prices of imported goods such as clothing, being controlled by Government commandeer. The calculation of rents by the Government Statistician is very conservative and based on inadequate data.

Court refused to do.[1] In this decision all three members were unanimous, and in the published pronouncement it was definitely agreed that the basic rates of wages were to be stabilised for a year. As some doubt had existed of the Court's power to fix wages for such a long period ahead, a proviso had been added to the original pronouncement, carefully worded as follows :—

"It is not intended to take away the right of either party to an award or industrial agreement to make application to the Court under the existing legislation; but the Court will require proof of extraordinary circumstances before departing from the principles herein laid down, unless the parties agree to a modification." [2]

This proviso proved a source of serious difficulty very quickly. The stir occasioned by the stabilisation scheme had hardly died down when the shearers' dispute brought a new difficulty. It should be noted that the great bulk of the trades which are regulated by the Court are those of the town which are in New Zealand commonly and significantly called "secondary." Many of the industries affected are protected by the tariff, and indeed a common argument for protection is that it should be regarded as a complement to the internal protection of labour laws. Any increase in the costs of production therefore can be passed on, and ultimately must find its way on to the shoulders of the landowners, who in New Zealand are mainly small farmers.

But the rural industries producing for a world-market cannot pass on increased costs by raising their prices to any extent, and when the shearers, in face of a drop in wool prices to approximately pre-war levels, came to the Court and asked for an increased piece-rate of wages, the Sheepowners Federation simply returned a *non possumus*.

The professional shearer in New Zealand is a nomad, often of Australian origin, who works through the sheds of Australia and New Zealand from north to south on a regular annual round. But there is a fluctuating reserve of labour in the ranks of the small farmers, and many Maori shearers, though extremely efficient and nominally members of the union, are not greatly in sympathy with the more aggressive unionists.

The Court disagreed, the employers' representative arguing that no award should be made and the labour representative standing firm on the Court's stabilisation scheme. The Judge made an award which involved approximately a 20 per cent.

[1] *Book of Awards*, Vol. XXII., p. 938.
[2] *Ibid.*, Vol. XXII., p. 804.

reduction of wages, on the ground that "extraordinary circumstances," in terms of the Court's reservation, existed in the industry.

The labour representative (Mr. J. A. McCullough), who had held office since 1908, resigned as a protest against what he considered to be a breach of agreement; a view of the case which was strongly contested by the other two members. The Shearers' Union is attempting to disregard the award, but there is some unemployment in New Zealand, and the small farmers will in many cases shear their own sheep. The Maori shearers, too, "as loyal citizens" intend to obey the award.

In the meantime the Trade Unions are divided in their attitude to the Court. The leaders of the Alliance of Labour urge that "the whole caboose should be knocked on the head." Mr. McCullough at first refused re-nomination absolutely, but a great majority of the unions proceeded to nominate him as an endorsement of his protest. His deputy announced his candidature in view of Mr. McCullough's refusal, but was not supported. Such a position was playing into the hands of the Court's opponents, until Mr. McCullough was persuaded "to hold the fort for a time until a successor can be appointed free from the present excitement."

It appears, therefore, that the testing of the Court has begun and will be severe. In the past it has if anything kept wages back; it would probably act as conservatively in a time of falling prices. But the distinction between nominal and real wages is not clear to the wage-earner, and, moreover, prices move unequally, so that a manufacturer's product may, and probably will, fall before the cost of living comes down. The Court's awards would probably operate to prevent wages following the former rather than the latter; but reductions in wages of any sort are unpopular, and there is an active minority of the labour movement which views the Court as a mere Capitalistic device, and which will therefore be glad of any opportunity to undermine it.

J. B. CONDLIFFE

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THE BRITISH ASSOCIATION MEETING AT EDINBURGH

The British Association met at Edinburgh, September 7–14, Section F being presided over by Mr. W. L. Hichens of Cammell,

Laird & Co., who gave an interesting address on the *Principles by which Wages are determined.* Its main conclusions were, that no simple practical method exists for the division of the proceeds of industry between Labour and Capital. Profit-sharing and similar schemes are no solution of the problem. In the determination of wages we must hope for a wider knowledge on both sides of economic forces and conditions, and to a greater measure of good-will, and in cases of active dispute to a more frequent adoption of arbitration.

The Section held a joint meeting with Sections J and L to discuss *Vocational Training and Tests,* at which Miss Grier spoke of their application in the case of the labour of women and girls, and Sir William Beveridge briefly traced their relationship to some of the economic problems of the present time.

Professor Macgregor showed what light the most recent inquiry has thrown upon *Trusts:* Sir Josiah Stamp, in a paper which was printed in the September issue of this JOURNAL, considered the *Taxable Capacity of a Country,* especially as exemplified by Ireland, and Miss E. F. Stevenson dealt with the *Economic Theory of Public Expenditure.* The remainder of the papers were devoted to the two subjects of wages and money. Miss G. Jebb contributed *Cost of Living Sliding Scales,* Mr. A. A. Mitchell *The Breakdown of the Minimum Wage,* Mrs. Barbara Wootton *Self-supporting Industries; an Inquiry into the Principle of Regulating Wages and Provision against Unemployment in Accordance with Industrial Capacity,* Dr. Mary Rankin *The Element of Compulsory Arbitration in Recent Industrial Legislation,* and Professor Kirkaldy *The Wages System and Possible Developments,* in which he suggested that harmony might be attained by the introduction of a system under which workers would be graded by an authority constituted for the purpose. Mr. A. H. Gibson, in *An International Standard of Value,* put forward a scheme for an international bank of issue which would regulate the amount of its notes outstanding by varying the rate of interest in accordance with the variation of general prices. This was criticised on the ground that it seemed to propose further additions to the existing currency of the world, and that the present time is unfavourable for the international regulation of currency. Professor Nicholson, in *Deflation,* cudgelled the inflationists. The part of his thesis which found least acceptance was that in which he seemed to reject altogether the "greater pressure of the National Debt" argument. Professor Cannan in *The Application of the Theoretical Apparatus of Supply and*

Demand to Units of Currency (printed in this number of the ECONOMIC JOURNAL) endeavoured to show that currency is no exception to the general rules of value, and to explain why the elasticity of demand for a rapidly increasing currency eventually falls below unity.

The Report of the Committee on the effects of the War on Credit, Currency, Finance, and the Foreign Exchanges consists largely of answers given by experts to a well-constructed questionnaire—answers often instructive and characteristic. Thus, in reply to the question: "Is the expansion of credit the cause or the effect of the expansion of the currency?" Professor Cannan replied: "There has been no expansion of credit when you measure credit in an undepreciated standard." Mr. Bernard Shaw says: "The two are really the same. Credit is one of the economic phantoms." To the question, "Was it possible in this and other countries to prevent the expansion of credit and currency?" Sir Josiah Stamp replies: "Theoretically, Yes, but psychologically, No." Mr. Hirst replies "Yes" without qualication. The Report of the Committee on Currency and the Gold Standard, which is published independently by its authors, will be noticed in a future number. The discussions were as usual for the most part too amateurish, the number of professional economists present being small and consisting chiefly of officers of the Section, who have business to attend to, and of readers of papers, who are naturally a little shy of vigorous criticism of each others' efforts. But the meeting was a pleasant one, and it is hoped that next year the more central situation of Hull and (perhaps) lower railway fares will enable a larger number of young teachers to attend. Gatherings of workers in different places, such as that which Professor Nicholson arranged at his house on the Sunday afternoon, indirectly promote the "advancement of science" as much as many "papers."

RECENT OFFICIAL PAPERS

Minutes of Evidence of the Committee Appointed to Inquire and Report on the Assistance which can be given by Women in the carrying out of Police Duties. [Cmd. 1133.]

Report of the Committee on the Employment of Women on Police Duties. [Cmd. 877.]

In thickly populated areas there is urgent need for the employment of policewomen. They should be invested with the legal powers

and status of a constable, their duties being defined so as not to include necessarily the exercise of physical force with consequent danger. On the basis of "comparative worth to the community," the normal standard of pay to the women should be somewhat lower than that of the men. But it should be open to a police authority to pay equal rates to the women it employs if their work is proved to be of equal value.

Report on Pottery (Profiteering Acts, 1919–1920). [Cmd. 1360.]

An interesting feature of the trade is the National Council under which the employers have undertaken to disclose the average profits on turnover and the average wages, so that the employed shall know the real facts relating to the industry.

Report on Conciliation and Arbitration, 1920 (Industrial Courts Act, 1919, and Conciliation Act, 1896). House of Commons, 195.

Census of England and Wales, 1921. Preliminary Report. [Cmd. 1485.]

The population of England and Wales, as numbered June, 1921, was 37,885,242, the largest number on record; but the increase, 1,814,750, is but half what it was for the previous intercensal period, and the rate of increase is the lowest on record.

Final Report of the Royal Commission on Wheat Supplies. [Cmd. 1544.]

OBITUARY

Sir Ernest Cassel

Though the newspapers gave generously of their space to obituary notices of Sir Ernest Cassel, his death must have seemed, to the older generation, to have excited a far less intense interest than it deserved. He has been described by an eminent American banker as "the greatest financier who ever lived," but he has apparently left the impression of a man who mysteriously acquired an inordinate amount of money, a small part of which he spent without success on the turf and a larger part in munificent charities.

In fact, his career seems to have been more important than his fortune; for it showed the sort of contribution a man of genius in finance can make to the economic development of even the older countries. It lasted, so far as the City was concerned,

from 1870 to 1910. At the end of that time he retired from active business, having begun with no capital and finished with about eight million pounds. And it is characteristic that when his will was proved ten years later, after he had given another million to social objects, and after a period of great depreciation in investments, it was proved for six millions.

He came to England from Cologne before he was twenty, and soon found his way to the firm of Bischoffsheim and Goldschmidt. Mr. Bischoffsheim's considerable abilities naturally included the power of justly estimating other people. Thus when Baron Hirsch, then a prince of Continental finance, asked him how best to enforce a claim against the Turkish Government for building the Oriental Railway, the advice was, "Send for my man Cassel." The Baron had expected something more impressive, but he took the advice and got his money. Thereafter Cassel was on the road, and clever constructions and reconstructions in Sweden and America, North and South, brought him into the Egyptian field with a reputation for making money and a small but strong and loyal group of associates all over the world. In Egypt the necessities of an effete government enabled him to get control of a certain amount of land which, if history and the analogy of not distant countries were to be trusted, would increase in wealth if it were given a chance. Personalities made his task difficult, but "Windsor Cassel" had all that knowledge of personalities which was necessary for him. He used it, however, only to promote a plan sound in itself. Thus he combined the investor's desire for bonds and preference shares at a time of cheap money with the potential wealth of a neglected but historically rich country; Egypt was irrigated for ever and the £5 Deferred Shares of the Daira Sanieh Co. changed hands at £900.

His subsequent activities contributed to the strength of many banks and other enterprises which now play a useful part. In the *Directory of Directors* he appeared only as a trustee for Egyptian Government Irrigation Certificates; but he maintained a sort of control over a number of first-class undertakings through nominees on their boards. It may be worth while to discuss his methods in the light of the American estimate of him quoted above. He never made, or wanted to make, the mistake of trying to sell to the public something in which he did not himself believe. He tried to discover concerns or countries the wealth of which could be increased by association with new capital in a new way. Having found for them a relatively small amount

of fresh capital himself—with his friends—it was usual for him quite soon to make a public issue bearing a fixed but high rate of interest, and not carrying strong voting power. Thus he was quickly liquid again himself, and the holder of Deferred shares in some form or other. His judgment being very good, the public usually got the interest for which they had bargained, and when his bigger plans matured, did not grudge the greater share of profits which fell to him.

Thus by good judgment, great quickness and energy, willingness to let other people make money, and the rare courage which enables a man to keep his resources always liquid, he made by himself one of the great fortunes of the nineteenth century, made it as a British citizen, and not out of the losses of others. He neither despised nor appeared to despise so rare a success; for the great appreciate greatness, and there had been nothing small in his career. But as victory followed victory, the issue of the other, secret, battle appeared always more like defeat. Family losses greatly afflicted his kind and patient heart. The war confirmed and deepened his inner melancholy.

Current Topics

The Political Economy Club, founded in 1821 by the exertions of Thomas Tooke (author of *The London Merchants' Petition*), with the co-operation of Malthus, Ricardo, James Mill, and others, celebrated its centenary on November 2. Lord George Hamilton presided over the celebrations, supported by many members of the club, and the guests included the President of the Board of Trade, Lord Haldane, Lord Ernle, Lord Askwith, Mr. Hilton Young, Sir Maurice de Bunsen, Sir Charles Addis, Sir Donald Maclean, Sir Frederick Macmillan, Mr. Henry Bell, and the Hon. George Peel.

Letters of congratulation on the Club's services to the advancement of Economic science from the American Economic Association and others were read. The question, "What has been the character of the services of the Club in the past, and what could be the scope of its activity in the future?" was opened by Prof. Sir W. Ashley, and those who took part in the discussion, in addition to Lord George Hamilton, were Sir Bernard Mallet, Lord Ernle, Mr. J. M. Keynes, Mr. Stanley Baldwin, Lord Haldane, Sir Hugh Bell and Professor Andréadès.

We note with pleasure that the Laveleye Prize has been awarded to Dr. Alfred Marshall. This is a quinquennial prize bestowed on some distinguished publicist for having made important progress in political economy and social science. The jury, appointed by the Royal Academy of Belgium, looks to the *ensemble* of an author's works, without regard to his school or nationality. The friends and admirers of Laveleye who founded the prize after his death preferred this form to one which would encourage youthful aspirants to compete in the production of prize essays. It was thought that the memory of Laveleye would better be perpetuated by connecting his name with that of some savant of world-wide reputation. This purpose has certainly been achieved in the present case. The grounds on which Dr. Marshall has been selected for this honour are ably stated in the report of the jury, containing an appreciative estimate of Dr. Marshall's work. Professor Mahaim acted as secretary and reporter for the jury; Count Goblet d'Alviella was president; and the other members of the jury were the Right Hon. A. J. Balfour, M. G. de Greef, Baron Descamps, Professor Charles Gide, and Mr. Seebohm Rowntree.

A correspondent writes :—"Prof. Knut Wicksell was born on the 20th of December, 1851, and will therefore attain the age of 70 on that date this year. His birthday will not pass unnoticed among Swedish economists, among whom he is revered as the G.O.M. of the science. His contributions fall into two more or less separate categories. In his theoretical work he is an eminent representative of the Austrian school, the ideas of which he has brought into a more complete body of doctrine (*Über Wert, Kapital und Rente*, 1893, *Vorlesungen über Nationalökonomie auf Grundlage des Marginalprinzipes*, 1913, etc.). Perhaps even more important are his contributions to the theory of money, in which he works out the quantitative theory for systems of credit and paper money, and for the first time, perhaps, in his generation shows the all-pervading influence of the rate of interest upon the value of money and upon crises. One of his Swedish colleagues, Prof. David Davidson, has shown how close a resemblance this theory bears to ideas enunciated by H. Thornton in *An Enquiry into the Nature and Effects of the Paper Credit of Great Britain* (1802). Wicksell, however, had worked out these ideas quite independently, without any knowledge of Thornton's book, and brought them to a consistent whole

(*Geldzins und Güterpreise*, 1898, *Vorlesungen*, Vol. II, which will appear soon, containing his ideas in mature form, published earlier in Swedish). Though he wrote mainly in Swedish or German, Wicksell's genius may be considered thoroughly English. Adam Smith, Malthus and Ricardo have been interpreted by him with the utmost devotion and insight. His name has appeared in the ECONOMIC JOURNAL from time to time as contributing to the discussion of important topics. Wicksell held the Professorship of Political Economy in the University of Lund, S. Sweden, from 1899 until his retirement in 1916, and is living now in Stockholm, where he has been constantly occupied in Government work connected with the Inland Revenue Department and the National Bank of Sweden."

At the invitation of the Government of India, Mr. J. M. Keynes is acting as Vice-President of the Indian Fiscal Commission lately appointed. He will proceed to India at the end of January and will be absent from this country for about three months.

M. Ernest Mahaim, Professor of the University of Liége and the correspondent for Belgium of the Royal Economic Society, has been appointed Minister of Industry, Labour and Supply in the new Belgian Cabinet.

The Evans Prize of £100, offered through the Cobden Club for the best essay on "The Wisdom or Unwisdom of Restrictions on the Exportation and Importation of Gold," has been divided between Miss W. A. Elkin and Miss E. Van Dorp, to whom, out of eighteen competitors, it has been awarded by the examiners, Professor Edwin Cannan and Dr. James Bonar.

Miss Elkin was a student at Newnham, and took a First Class in both parts of the Economics Tripos at Cambridge. She has done much work in connection with the relief of the famine areas, and was for some time secretary of the "Save the Children Fund." Miss Van Dorp is a Doctor of Law and a lecturer at the University of Utrecht; and a contributor to the *Economic Journal*.

RECENT PERIODICALS AND NEW BOOKS

The Edinburgh Review.

OCTOBER, 1921. *Labour and the League of Nations.* SIR LYNDEN MACASSEY. The International Labour Organisation should be more widely known; and might be much improved. The activity of rival "Internationals" excites the fear that "Geneva will become merely a stage on the roundabout road to Moscow."

The Fortnightly Review.

SEPTEMBER, 1921. *The Economics of Communism.* J. A. R. MARRIOTT, M.P. A reply to the Marxian arguments of Mr. Gould (in the JULY number) is pointed by the results of the Russian experiment.

NOVEMBER, 1921. *Prices and Productivity.* H. H. O'FARRELL. A vigorous attack on the position that deflation is inconsistent with productivity. *Unemployment, its Cause and only Cure.* J. ELLIS BARKER. A criticism of the Government proposal.

The Nineteenth Century.

SEPTEMBER, 1921. *The Bolshevist Food System.* MRS. HAROLD WILLIAMS. The essence of the Bolshevists' policy is the Communist system of production and distribution resulting in starvation. *The Industrial Crisis and the Remedy.* C. W. MACARA. The crisis is aggravated by the meddling of politicians; among remedies is the application to all industries of some such scheme as that of the cotton-spinners, under which the employed are entitled to ascertain the earnings of the industry. *The Nation and Finance.* SIR HENRY CRAIK. The plight of the middle classes requires a check to Government expenditure. "We can no longer afford a Labour Department which demands an annual revenue of £20,000,000 for work, the utility of which is at best problematical; which busies itself in fussy interference with matters which would be much better left to private bargain."

The Round Table.

SEPTEMBER, 1921. *National Prosperity and Industrial Peace.* A well-balanced argument shows that "the present state of affairs is partly due to the callousness and greed of a great part of Capital," and partly to "the hatreds and the false economics of a great part of Labour." The remedy is a change of attitude on both sides.

The Banker's Magazine.

MAY, 1921. *The Possibility of Forecasting Rates of Interest.* F. G. PEAKE. Observations of the Money Market from 1882 to 1913 show a correlation of above +·5 between (*a*) the difference between the rate of interest on floating money and the rate of discount on three (or six) months' Bank Bills, and (*b*) the rises and falls in the floating rate during the three (or six) months following the date of the quotations referred to in (*a*) (the prospect of (*b*) having presumably influenced (*a*)).

AUGUST. *The Relationship between the American and French Exchanges and the Rates of Interest and Discount.* F. G. PEAKE. There is a correlation of —·42 between (*a*) the average annual value of the sovereign in dollars for the years 1882–1913, and (*b*) the rate for floating money (and also the rate for discount of three months' Bank Bills) in London. The average annual rates of exchange between France and the United Kingdom do not show any such relations with the rates of interest and discount in London. The monthly average for the period also present interesting relations.

SEPTEMBER. *On the Prices of Commodities.* E. G. PEAKE. From Sauerbeck's statistics for 1850–1910 there are elicited correlations averaging +·59, between the yearly index numbers for several groups of commodities (*e. g.* between the *textile* group and that of *vegetables* + 60, between *textiles* and *minerals* + 51). The average percentage variation of the index numbers from year to year are different for different commodities; *e. g.* (1850–1880) potatoes 18·300, 4·4 for beef.

International Labour Review (Geneva).

JULY–AUGUST, 1921. *The International Labour Office and the Protection of Children. Labour Legislation in France during and after the War.* ROGER PICARD. *The British Industrial Court.* SIR WILLIAM MACKENZIE (President of the Court).

The Labour Monthly.

AUGUST, 1921. Vol. I., No. 2. *The World Economic Situation.* L. TROTSKY and E. VARGA. A gloomy and inflammatory tirade. There is anticipated a new, a "genuine," world-war, with consequences compared with which "the present state of Europe might be regarded as the height of well-being." It is admitted that "the struggle of the proletariat for power has been temporarily checked and its *tempo* delayed." But revolutionary communism will ultimately prevail.

The Quarterly Journal of Economics (Cambridge, Mass.).

AUGUST, 1921. *Generating Cycles reflected in a Century of Prices.* H. L. MOORE. Cycles of approximately eight years in the yield per acre of British crops may be traced during the last 160 years. *Fundamental Problems of Federal Income Taxation.* T. S. ADAMS. Sur-taxes, income-tax on corporations, the business tax, the relative claims of simplicity and equity are among the topics handled. *The Measurement of Changes of the General Price Level.*

ALLYN A. YOUNG. An expression agreeing with Prof. Irving Fisher's index-number is evolved. *Reciprocity with Canada.* H. S. PATTON. *The Shifting of Taxes on Sales of Land and Capital Goods and on Loans.* H. G. BROWN. *Reorganisation of Instruction in Finance.* W. H. LOUGH. *Unit Costs as a Guiding Factor in Buying Operations.* G. E. PUTNAM. The packer's system of cost accounts is typical of what is, or should be, the practice in other industries.

The American Economic Review (Cambridge, Mass.).

SEPTEMBER, 1921. *The Movement of Real Wages,* 1890–1918. PAUL DOUGLAS and FRANCES LAMBESSON. The commodities received by the American workman for an hour's work was at the end of the War from 10 to 20 per cent. less than in the decade 1890–1899, from 7 to 17 per cent. less than in 1916. *Recent Developments in the Federal Farm Loan System.* GEORGE E. PUTNAM. Referring to the decision of the Supreme Court, February 1921. *Railway Service and Regulation in Port Terminals.* C. O. RUGGLES. *Family Budgets and Wages.* MARGARET L. STEDIER. The use of Budgetary Studies for the measurement of cost of living and adjustment of wages presents serious difficulties. *Changes in Discount Rates of Federal Reserve Banks.* ANNA YOUNGMAN.

The Political Science Quarterly.

SEPTEMBER, 1921. *The Problem of Railway Control.* EMORY R. JOHNSON. "The railroads, waterways and highways . . . should be so co-ordinated that they will together form a physically unified transportation system." *Unemployment Relief in Great Britain.* C. H. NORTHCOTT. "Insurance against unemployment will come to be considered as rational and desirable as life and fire insurance." *The Bank of England and the Money Market.* J. E. NORTON. The Bank has now less control over the supply of credit than formerly.

Journal of Political Economy (Chicago).

OCTOBER, 1921. *The Economics of American Penology.* H. E. BARNES. Referring to the prison industries of Pennsylvania.

The Review of Economic Statistics (Cambridge, Mass.).

AUGUST, 1921. *The Position of Gold.* JOSEPH KITCHIN. In view of checks to the production of gold it is predicted that the average output for the next decade will be about £70,000,000 per annum.

SEPTEMBER. The usual monthly survey of general business conditions is followed by a study on World Banking Currency and Prices, 1920–21. A return to pre-war prices is regarded as very improbable. At some height between the previous and the present levels the trend of prices is likely to be horizontal or moderately descending for several years.

OCTOBER. *The Readjustment of Operating Expenses.* MELVIN T. COPELAND. There were wide divergencies in the sales at which the various items of expense and selling prices increased in several shoe factories. Operating expenses followed the fluctuation in receipts from sales very closely in several businesses.

Journal des Économistes (Paris).

OCTOBER, 1921. *La réforme sociale et les Finances britanniques.* Y. GUYOT. *Les assurances sociales obligatoires.* G. DE NOUVION. *Les prix et les salaires en Angleterre de* 1914 *à* 1920. A. RAFFALOVICH.

Revue d'Économie Politique (Paris).

JULY–AUGUST, 1921. *Théorie des banques.* J. LESCURE. *Les idées des "narodniki" russes.* J. DELEVSKY. This sect hold that the socialistic destinies of Russia differ from those of capitalist Europe and need not develop on Marxian lines. *L'idée de loi naturelle dans la science économique.* P. STRUVE.

Weltwirtschaftliches Archiv (Jena).

JULY, 1921. *Kräfte in der deutschen Industriewirtschaft.* DR. H. BECKERUTH. *Die holländischen Kolonien und der Freihandel.* DR. J. C. KIELSTRA. *Die Enstehung der englischen Währung.* DR. K. SINGER. *Das wesen . . . des Bank kredits.* DR. L. V. BORTKEWICH.

Zeitschrift für Volkswirtschaft und Sozial-politik (Vienna).

NEW SERIES. Vol. I. PARTS 4–6. *Carl Menger.* J. SCHUMPETER. An appreciative study on the work and scientific character of the great Austrian economist. *Die sozial-ökonomische Kategorie der Wertes.* DR. HERO MUELLER. *Stabilisierung oder Valutahebung als Ziel der Währungsreform.* E. H. VOGEL. *Die Bedeutung der Warenbörsen für den wirtschaftlichen Wiederaufbau Oesterreichs.* R. BRICHTA. Proposals for reviving Austrian trade.

De Economist (La Hague).

OCTOBER, 1921. *Malthus.* L. A. RIES. This article concludes a study of the Malthusian doctrine, dealing with the decline of the birth-rate and other aspects of the subject in the light of numerous authorities.

Giornale degli Economisti (Rome).

AUGUST, 1921. *Sulla rilevazione statistica del movimento dei forestieri.* R. BACHI. On statistics of temporary residence. *Interno alle pressione di qualunque imposta a parità di prelievo.* G. BORGATTA. On the pressure of different kinds of taxes (referring to an article in the July number). *Il prezzo del pane in Matelica nel secolo XVII.* M. BOLDRINI.

SEPTEMBER, 1921. *Un caso di protezionismo marittimo a Rovescio.* E. CORBINO. *La discriminazione qualitativa fra ricchezze soggette ad imposta.* S. ONETO.

La Riforma Sociale (Turin).

JULY, AUGUST, SEPTEMBER. *L'inchiesta sul controllo operaio.* The results of a *questionnaire* circulated by the *Riforma* concerning the control of factories by the workpeople.

Metron (Padua).

SEPTEMBER, 1921. Among articles which specially concern the economist is that of LUCIEN MARCH on the modes of measuring the general movement of prices, clearing up the confusion between the budgetary and the monetary index: "Dans le calcul de l'indice monétaire, il est inutile de faire intervenir les quantités." PROFESSOR C. GINI writes on the war from the point of view of eugenics. The increase in the proportion of male births during the war observed in this country by our Registrar-General and observable among other belligerents is attributed by L. SAVORGNAU to a longer duration between conceptions. There are other papers of great statistical interest.

Revista Nacional de Economia (Madrid).

VOL. X., NO. 29. *La organización de los transportes en España.* ANDRÉS BARTHE. *Proyectos de reforma monetaria en Europa.* G. ZOTTER.

NEW BOOKS.

English.

ATKINSON (MEREDITH). Australia: Economic and Political Studies. By various writers. Edited by M. Atkinson. Melbourne: Macmillan.

BRAND (HON. R. H.). War and National Finance. London: Arnold. 1921. Pp. xii + 287. 15*s*. net.

[To be reviewed.]

British Year-Book of International Law, 1921–22. Second Year of issue. London: Frowde. Pp. 272.

[Since the publication of the first volume the Year-Book has been affiliated to the British Institute of International Affairs. Sir Erle Richards leads off the second volume with an article on the Permanent Court of International Justice.]

CARPENTER (CHARLES). Industrial Copartnership. With Chronological Notes on British Profit-Sharing and Copartnership. London: Copartnership Publishers. 1921.

COHEN (J. L.). Insurance against Unemployment. With special reference to British and American conditions. London: King. 1921. Pp. 536.

COMMONS (JOHN R.). Industrial Government. London: Macmillan Co. Pp. 423. 17*s*.

COPLAND (D. B.). Currency and Prices in Australia. The Joseph Fisher Lecture on Commerce. Adelaide: Hassell. 1921. Pp. 44.

COUSENS (H.). A New Policy for Labour. London: Palmer. Pp. 110. 5*s*.

[Contains an introduction to the proposals of Major C. H. Douglas for the democratisation of credit.]

DRYSDALE (C. V., D.Sc.). The Malthusian Doctrine and its Modern Aspects. London: The Malthusian League. Pp. 68.

[A series of articles contributed to *The Malthusian* during 1916 and 1917 by the editor of that organ.]

DRYSDALE (C. V., D.Sc.). Wages and the Cost of Living. London: The Malthusian League. Pp. 48. 6*d*.

[A paper written for the Economic and Statistical Section of the British Association at Birmingham and rejected by them is now reprinted.]

GIDE (CHARLES). Premières Notions d'Économie Politique. Paris: Michel. Pp. 177.

[Beginning with the labour of insects and the capitalisation practised by dogs, the eminent economist presents clearly "*aperçus* on the origin and evolution of primordial sociological notions."]

FORRESTER (R. B.). The Cotton Industry in France. (Gartside Reports.) With an Introduction by D. H. Macgregor. Manchester: University Press. 1921. Pp. 142.

[The author is Lecturer in Political Economy in the University of Aberdeen.]

GILCHRIST (R. N.). Principles of Political Science. London: Longmans. 1921. Pp. 799.

GREGORY (T. E. G.). Tariffs: a Study in Method. London: Griffin. 1921. Pp. 518.

[To be reviewed.]

HALSTEAD (R.). The Producer's Place in Society. Manchester Co-operative Union. 1921. Pp. 48. 1*s*.

[Increased control of industry by the workers will be attended by many blessings.]

HAWTREY (R. G.). The Exchequer and the Control of Expenditure. (The World of To-day.) London: Milford. Pp. 72. 2*s*. 6*d*.

[To be reviewed.]

HISCOX (W. J.). Factory Organisation and Practice. London: Pitman. Pp. 214. 8*s*. 6*d*.

JEVONS (H. STANLEY). The Economics of Tenancy Law and Estate Management. A course of public lectures delivered in the University of Allahabad. Allahabad: University. 1921. Pp. 114. R. 1·8.

JONES (ROBERT), D.Sc. Taxation, Yesterday and To-morrow. London: King. 1921. Pp. 147.

KIRKALDY (A. W.). British Finance during and after the War, 1914–21. Being the result of investigations and materials collected by a Committee of Section F of the British Association. Co-ordinated and brought up to date for the Committee by A. H. Gibson. Edited by A. W. Kirkaldy. London: Pitman. Pp. 474. 15*s*.

[The mass of information embodied in the four reports of the Committee are here co-ordinated and brought up to date by Mr. A. H. Gibson. He adds some interesting reflections. If Government had conscripted the factors of production for war materials, expenditure might have been reduced by a half. A similar reduction might have been effected if the Government had refrained from the policy of credit expansion. It is doubtful if any country has gained by a policy of inflation.]

KIRKALDY (A. W.). British Labour Replacement and Conciliation, 1914–21. Being the result of conferences and investigations by Committees of Section F of the British Association. Co-ordinated and revised by Miss A. Ashley. Part II.: On Conciliation. Edited by A. W. Kirkaldy. London: Pitman. Pp. xxxv + 266. 10*s*. 6*d*.

McDOUGALL (WILLIAM). National Welfare and National Decay. London: Methuen. 1921. Pp. 214. 15*s*.

MACMURRAY (JOHN V. A.). Treaties and Agreements with and concerning China, 1894–1919. Vol. I. Manchu Period, 1894–1911.

MANN (HAROLD H.) and KANITKAR, L. AG. Land and Labour in a Deccan Village. (University of Bombay Economic Series, No. III.) London: Milford. 1921. Pp. 182.

[A sequel to the study noticed in the ECONOMIC JOURNAL relating to another Deccan village. Jategaon Budruk, the subject of the present study, resembles that other village in some respects; in particular the increase in the number of holdings and the division of the holdings into fragments.]

Monetary Policy. Report of a sub-committee on Currency and the Gold Standard. London: P. S. King. 1921. Pp. 75. 2*s*. 6*d*.

MOON (PARKER THOMAS). The Labour Problem and the Social Catholic Movement in France: a study in the History of Social Politics. New York: Macmillan Co. 1921. Pp. 473.

OLDS (MARSHALL). The High Cost of Strikes. London: Pitman. Pp. xx + 286. 15*s*.

ORTON (W. H.). Labour in Transition: a survey of British Industrial History since 1914. London: Allan. 1921.

PAGAR (SHANKAR M.). The Indian Income Tax: its History, Theory and Practice. Baroda: S. M. Pagar. 1920. Pp. 219. 8*s*.

[The author, and publisher, was for some time Director of Commerce, Industry and Statistics, Baroda State.]

PAUL (E. and C.). Prolecult. (New Era Series.) A Study on Proletarian Culture. London: Parsons. Pp. 159. 4*s*. 6*d*.

PENSON (SIR HENRY). The Economics of Everyday Life. Part II. Cambridge University Press. 1921. Pp. 111.

[To be reviewed.]

PIGOU (A. C.). The Political Economy of War. London: Macmillan. 1921. Pp. 251.

[To be reviewed.]

REES (J. F.). A Short Fiscal and Financial History of England (1815–1918). London: Methuen. 1921. Pp. 246.

ROWNTREE (B. SEEBOHM). The Human Factor in Business. London: Longmans. 1921. Pp. 176.

SCOTT (JAMES BROWN). Proceedings of the Hague Peace Conferences. Vol. II. The Conference of 1907. New York: Oxford University Press. 1921. Pp. 1086.

SPALDING (WILLIAM F.). Foreign Exchange and Foreign Bills in Theory and Practice. London: Pitman. Pp. 232.

STONE (GILBERT). A History of Labour. London: Harrap. 1921. Pp. 416.

TEMPERLEY (H. W. K.), Editor. A History of the Peace Conference of Paris. Vols. IV. and V. (Institute of International Affairs). London: Frowde and Hodder. 1921.

[Economic Reconstruction in the treaties forms part of Vol. V.]

THOMAS (S. EVELYN). The Principles and Arithmetic of Foreign Exchange. London: Macdonald & Evans. 1921. Pp. 269.

WALLS (ERNEST). Progressive Partnership. (Business Man's Series.) London: Nisbet. Pp. xi + 284. 12*s.* 6*d.*

WOODS (MISS K. S.). The Rural Industries round Oxford. A survey made on behalf of the institute for research into agricultural economics. University of Oxford. Oxford: Clarendon Press. 1921. Pp. 180.

[To be reviewed.]

American.

COMMONS (J. R.). Trade Unionism and Labour Problems. Selections and Documents in Economics. Edited by W. Z. Ripley.

COMMONS (JOHN R.), and others. History of Labour in the United States. With an introductory note by Henry W. Farnam. New York: Macmillan Co. 1921. Vol. I, pp. 623; Vol. II, pp. 620.

[To be reviewed.]

MITCHELL (BROADUS). The Rise of Cotton Mills in the South (Johns Hopkins University Studies). Baltimore: Johns Hopkins Press. 1921. Pp. 281.

[To be reviewed.]

LIPPINCOTT (I.). Economic Development of the United States. New York: Appleton. 1921. Pp. 670. $ 3.50.

PASVOLSKY (LEO). The Economics of Communism. With special reference to Russia's experiment. New York: Macmillan Co. 1921.

German.

BÖHM BAWERK (EUGEN VON.) Kapital and Kapitalzins. Jena: Gustav Fischer. 1921.

[This is the 4th edition of the two well-known works of the late eminent Professor and Finance Minister. The text is left as finally revised by the author in the 3rd edition of the Theory (1909) and of the History (1914). See JOURNAL of June 1913, p. 241, and March 1916, p. 68. The book is now arranged in three uniform volumes, of which the first has the History, the second the text of the Theory, the third the Excursus, previously divided between the two volumes of text (see present Vol. II. p. xiv *note*). Professor Wieser has given us two Prefaces (to Vol. I. and Vol. II.) describing the Author's place and influence in well-chosen words of praise, though not himself wholly in agreement with the Theory.]

EUCKEN (WALTER). Die Stickstoffversorgung der Welt. Eine Volkswirtschaftliche Untersuchung. Berlin: Deutsche Verlags-Anstalt. 1921.

[A study on the supply of nitrogen before and during the War and for the future.]

STOLPER (DR. GUSTAV). Deutschösterreich als Sozial und Wirtschafts Problem. Munich: Drei Marken. 1921. Pp. 320.

Der Wirtschaftliche Wiederaufbau. Berlin: K. Block. Mk. 90. Various authors treat various sides of economic reconstruction: the socialisation of industrial concerns, direct and indirect taxes, Germany's liabilities, etc.

Italian.

AMOROSO (PROF. LUIGI). Lezioni di Economie Matematica. Bologna: Zanichelli. Pp. 472.

AMOROSO (PROF. LUIGI). Lezioni di Matematica Finanziaria, raccolte della Professóra Emma Sciolette. Volume Primo. Naples Gennaro Mago. 1921. Pp. 208.

[The subjects treated are the operations of the money-market; the mathematical theory of capitalisation; the conceptions of functions in general, and of those which are proper to the technique of insurance; the foundations of the differential calculus and its applications to finance.

ARTOM (E.). Lineamenti della crisè sociale, cos prefazione di Achille Lorie. Turin: Unione Tipographico. Pp. 359.

PARETO (VILFREDO). Lezioni di Scienza economica razionale e sperimentale. Rovigo: Industrie grafiche. 1921. Pp. 907.

PRATO (GUISEPPE). Un Tentativo di Banco pubblico a Mantova nel 1626. Turin. 1920.

RICCI (U.). Il fallimento della politica annonaria.